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ORIGINAL ARTICLES.

The Phonograph in Testing Hearing.

BY DR. GEO. F. FISKE.

It is certainly no exaggeration to say that scientific examination and treatment of the ear began with Anton von Troeltsch's method of using a perforated concave mirror reflecting daylight or artificial light into the ear. It is also probably true that since that time, 1855, more time and labor have been spent in attempting to devise satisfactory hearing tests than upon any other question of otology. Aurists have clearly recognized this lack, and have known just what they wished to accomplish. To give a definition of normal hearing power one must consider the hearing with regard to intensity of sound—ability to hear loud or soft sounds; with regard to the pitch, and tone quality, and also the distinctness with which rapidly recurring tones or noises can be separated by the ear. It is, in consequence, impossible at present to establish an absolute standard of normal hearing.

Practically three means of testing are used—the watch or similar instrument; speech—whispering or loud voice; and musical tones—tuning forks or other musical instruments. Any examination of the hearing to be satisfactory must include all these tests; and we have for each test a standard as normal, which is, however, not arbitrary, depending, as it does, upon the degree of quiet in the room used, upon the voice of the examiner, the age of the examined, &c.

To illustrate—in testing with the watch it is not infrequent to find a young person who hears the watch at the normal distance, while ordinary conversation is heard at the distance of three or four feet with difficulty. If then we employ the watch alone in examining such a patient it is easy to make a serious mistake in diagnosis and prognosis. Then again, in examining a man over fifty year of age, it is the rule that the hearing distance for the watch is very greatly reduced as compared with youth. It may be that the watch is heard only upon contact with the ear, while whispering and loud voices are heard at the standard distance. Much more rarely there is a great difference between the hearing of words whispered and spoken.

I remember the case of a man forty-three years old, with no history of aural or nasal disease, who asked me to test his hearing because he chanced to be present while his daughter was being treated. He heard whispering at three feet in a room where thirty feet was the normal distance; but, to my astonishment, on changing to spoken words, he distinguished them at the normal hearing distance, in this case, forty feet.

Similar variations, which can perhaps properly be termed physiological, present themselves in examining with the tuning forks, due in some cases to education of the ear as regards the limit of high and low tones.

Now the voice is by far the most important of our tests, not only because it is more necessary in daily life to hear the human voice than any other sounds, but also because it is heard with more constancy through life, with less variation on account of age. But this, our most important test, is also by far the most uncertain. Not only is it extremely difficult to reproduce exactly the volume and quality of a given voice, but the voices of different examiners vary so greatly that the patient's statement, that he heard two years ago Dr. So and so's voice at such and such a distance, would be in very many cases of no help to the present examiner.

The watch can be made an accurate test by making a standard watch of a certain loudness, which shall be adopted by all aurists. Politzer's acoumeter and new Hörmesser accomplish this fairly well at a moderate cost. It is also possible to measure very accurately the hearing for musical tones by using as standard König's graduated tuning forks and steel rods.

One might perhaps nevertheless claim that the voice as at present used suffices for all practical purposes; and this is true as regards testing persons of normal hearing, or testing differences of hearing before and after and after extracting inpissated cerumen, as well as before and after treatment in acute catarrhal and purulent middle ear disease. But we have to consider also the different forms of chronic middle ear disease. Formerly—some years ago—non-suppurative chronic deafness was regarded as incurable, perhaps made worse by treatment, and the patient was dismissed with the statement that nothing could be done for him, or, perhaps, that he would not get worse, or, again, that as his general health improved his hearing would return. The patient was thus turned over to the mercies of the quack, or to the enterprising manufacturer of patent invisible ear drums, whose advertisements still grace our periodicals.

To-day many of these chronic cases are cured entirely; many are improved; in some cases the progress of the disease is arrested; in others delayed, while in some cases there is certainly no help from treatment, and sometimes a more rapid decrease in the hearing following it. In all these chronic cases it is important to measure the hearing accurately, and most important to measure it for speech. It is remarkably true that chronic catarrhal middle ear diseases are amenable to treatment in inverse ratio to their time of progress. When the aurist is consulted in the early stages of the disease, it is of the utmost importance to know and to make the patient know two things: (1.) Exactly how much the hearing is impaired as compared with normal hearing; (2.) Whether there is improvement or loss, however slight, between two dates separated by a certain interval. Whether no treatment is given or change of climate advised, or treatment directed to nasal catarrh or locally to the ear, it is of equal importance that such tests should be conclusive to the patient. This is, however, often impossible when dependent upon the aurist himself. Aside from variation due to colds, age, &c., the patient places no such confidence in the physician's voice, as in the test types of the oculist hanging at the other end of the room, with the normal visual distance clearly marked upon them. Even with confidence on the patient's side, and perfect conscientiousness on the physician's, it is impossible to reproduce with absolute exactness

the words whispered or spoken—say one year after the first examination; and a slight mistake here might lead to a great mistake in prognosis and in treatment. At present records are of value only to the aurist making the examination.

To sum up briefly, we need a method of testing the hearing which shall (1) make use of human speech; (2) be accurate and independent of the examiner; (3) make a record capable of interpretation and use by other aurists.

It is believed that in the phonograph we have the only instrument which at present fulfills these conditions.

Prof. Lucae in Berlin, has invented the phonometer, an ingenious instrument which measures the strength of expiration in speaking certain words. This fails in that it does not measure the clearness of articulation. Since the invention of the telephone many electrical acoumeters have been invented, in which the tone is given by an electrical tuning fork, and the hearing distance for certain tones accurately recorded. Such instruments have been invented by Hartmann, Jacobson, Gradenigo and others, but they do not give articulate speech, which is an absolute necessity.

The thought that the phonograph would theoretically give the desired means of testing the hearing occurred to me long ago, as it has probably occurred to many others. It is, however, only recently that I have been able to use it in my own practice. In speaking in Berlin with Prof. Trautmann upon this subject, he expressed the belief that it would prove useless in testing imperfect hearing because of the necessity of using a tube in the ear to transmit the sound, and because of the slight volume of the sound. My own method of using the instrument is to dispense with all connection by tube with the patient's ear, measuring the distance in meters or feet at which the patient can repeat words previously spoken into a cylinder turning at a certain speed and then reproduced by the phonograph. The patient is placed at first beyond hearing distance and then gradually brought nearer the instrument. I then record name of patient, date and hearing record upon this same cylinder, either giving same to the patient, or keeping it carefully put away. In addition to this voice test, I test through a tube one meter long, the softest whisper which the patient can distinguish.

My attempts to use whispering and measure the distance in the same way as with the voice have failed for the reason that the hearing distance for the normal ear is only from one to two feet. My own experience has shown that Prof. Trautmann's objection as regards volume of sound is not valid, the phonograph reproducing words with such volume that the normal ear hears and repeats them at forty feet in a quiet room, thus giving good range for testing slight and moderate loss in hearing distance. In testing with patients having partial hearing, one heard loud whispering at fifteen feet, the phonograph at twelve feet; another, the loud whispering at five feet and the phonograph at two and one-half feet; a third whispering at three feet, phonograph at one foot. These and similar cases show what one would expect—that the human voice is heard relatively further, by those persons whose hearing is imperfect, than its reproduction by the phonograph. Those patients who did not hear the whispering at all did not distinguish the words of the phonogram, yet in such cases, where the loud voice is still heard at two feet, one can test with the phonograph and the hearing tube. In case of those persons who hear shouting alone, or very loud speech, any accurate measurement of the hearing distance is almost impossible and it is certainly not possible with the phonograph at present.

Among the objections occurring most forcibly to me during my work upon this subject, the first was that it is not the human voice which is used, though a wonderfully perfect reproduction by mechanical means, and that the volume and quality of the voice lose in transmission. Yet the volume of sound is sufficient to give a range of forty feet to record differences in hearing distance, or more than the length of the room usually at the aurist's disposal, and the quality still permits of the recognition of a friend's voice. A new diaphragm still thinner than the one in present use is expected within a year, and this will undoubtedly add to the accuracy of reproduction, and to the volume of tone.

The second objection was that the prepared cylinder, or phonogram, must in case of consultation, be carried about by the patient and if lost, the record is lost. To obviate this I have in some cases prepared two cylinders, giving one to the patient and keeping one myself.

The hope presenting itself to me before experimenting was that one person should speak into a cylinder and this cylinder be indefinitely reproduced by the electrotyping process, and fac simile phonograms be used by all aurists possessing phonographs, as all oculists use printed copies of Snellen's types. In fact this process has been carried so far that five accurate copies have been made of a given cylinder, although at a very great expense, and Mr. Edison hopes to make indefinite reproduction practicable.

Thirdly, the objection occurred as to the possibility of variation in different machines. The chief points where variation in the part of the machine would make variation in the reproduction are the glass diaphragm and the sapphire needles. The glass diaphragms are three one-thousandths of an inch in thickness, and both they and the needles are made as exactly alike as is possible to skilled machinists. I have tested this question practically by taking the same cylinder and using it in the same room on three different machines taken from stock at random, having the hearing distance controlled by another examiner whose hearing is normal, and by myself; and we could detect no difference in the hearing distance for the different machines. The possibility of the sapphire points being screwed in loosely, or similar mistakes, cannot be obviated, which is true of any instrument of precision. Among the less important objections are the cost—sixty dollars per year. Then the wearing out of the cylinder by use, which can however be neglected, as one cylinder has repeated 3,400 times before becoming indistinct, while I have myself tested the same cylinder 100 times with no discernible difference in clearness of tone.

The time which is necessary for its use is also an objection to the instrument. This holds, however, only for the first examination; afterward no more time is necessary than in any other method of testing.

In using the phonograph it is desirable to have a room which is quiet—indeed, this is the only way in which uniformity can be obtained, and a second ex-

aminer make a comparison with the previous phonographic record, phonogram, brought by the patient.

The instrument itself is undoubtedly familiar to you all. The only points of adjustment are the speed of the cylinder and the screw, which, after a cylinder is put on the phonograph, enables the reproducing needle to fit exactly in the grooves in the wax made by the recording needle. Both adjustments are very easily made. In practice I set my instrument at one hundred and twenty revolutions per minute, which speed seems to give the best reproduction.

In conclusion, I can only say that my own experience has satisfied me that my phonographic tests and records are far more reliable and accurate than any I have been enabled to make by any other method, and yet it seems to me equally certain that in the future this method of testing will be rendered still more perfect.

A New Method of Determining Latent Squint and Insufficiencies of Ocular Muscles.

By H. Gradle, M. D., Chicago.

Within the last few years it has been claimed by Stevens and various followers that insufficiency of one or the other eye-muscle is a common source of asthenopic complaints as well as of functional nervous diseases. According to these authors any one of the ocular muscles may be so weak, compared with its antagonists, that it requires an undue effort and strain to keep the eyes in the position requisite for binocular vision. This strain or muscular fatigue, they say, leads to inability to use the eyes, headaches, and even functional derangements of the nervous system in general.

The occasional occurrence or insufficiency of one of the ocular muscles, viz.; the internal rectus had been maintained by von Græfe some thirty years ago, but the majority of oculists have not admitted or recognized this clinical condition to any extent. More recently, however, Landolt has shown by decisive methods that cases do occur in which the interni are not able to balance their too powerful antagonists with comfort to the patient, and that such patients can be cured by weakening the externi or strengthening the interni by advancement. It is, however, quite a step from the precise proof by Landolt that insufficiency of the interni does occur, even if not very commonly, and that it is curable by operative measures, to the extreme claims of Stevens and his followers that insufficiences of any of the ocular muscles are such a frequent source of asthenopia and functional nervous disorders, and that even minor degrees of insufficiency are of great clinical importance. Such far-reaching claims cannot be accepted until more positive proofs are furnished than have yet been produced.

The common method for detecting insufficiencies is based on the following premises: The binocular fusion of the images formed on the two retinæ by one object is possible only if both visual axes are directed at one and the same object. Whenever one eye deviates from the position corresponding to the point at which the other eye looks, or when the rays coming from that point are turned from their path by an interposed prism, double sight results. This diplopia is so annoying a sensation that reflex movements of the ocular muscles immediately occur which tend to bring back the eyes to the position required for single sight.

Thus if a weak prism be held in front of one eye, the visual axes are immediately adjusted to the correction of the influence of this prism. For this very reason a muscle, which is not strong enough to balance its antagonists without fatigue, still persists in its work in spite of fatigue, in order that diplopia be avoided. If, however, a prism of such strength be held before the eye that the ocular movements are not able to overcome its influence, they cease in their useless efforts and the diplopia is inevitable. Under these circumstances the eye retains its original position in some instances; in others it deviates one way or the other. Thus if a prism of 8° be placed with its base up or down so as to give vertical diplopia, the two images will appear to some persons exactly one above the other, and the eyes are then seen to retain the same position as before the use of the prism. But to others the images will appear separated by a horizontal distance as well, and the eye then either deviates outward when the diplopia is crossed or it squints inward when the separate images are each on the side of the eye to which they belong. It is commonly understood that the deviation found with this prism test, if any exists, measures directly the insufficiency of that muscle, which by its relaxation allows the eye to deviate. This assumption I do not think has been sufficiently proven. The deviation, while it generally indicates a relative weakness of the muscle involved, does not measure that deficiency of strength accurately. For muscles are living tissues, the elasticity and contractive strength of which vary under different influences—especially that of previous fatigue. Hence the degree of deviation shown by the prism test is found to vary at different times in the same patient. Moreover, the diplopia introduces the psychic factor of confusion, which interferes with the co-ordination of the ocular muscles. Since the harmonious action of the recti muscles exists for the very purpose of avoiding double vision, the diplopia incident to the prism test is a factor which may lead to an abnormal position of the eyes by itself.

In order to test for the frequency and clinical importance of suppressed squint, I have devised a method which does not produce diplopia. It is based on the exclusion of binocular vision, so as to allow the muscles to contract and to adjust their tension according to their relative strength while a given object is viewed, without the possibility of seeing that object double. To accomplish this end the field of vision of each eye is separated from that of the other by a dividing partition. The principle can be illustrated most easily on the apparatus which I use for short range.* The object viewed is a translucent surface of celluloid or glass, held by means of a frame like a stereoscope at a distance of about eleven inches from the eyes. A partition shaped to adapt itself to the contour of the face and running from the median line of the face to the cellu-

*The apparatus and method were demonstrated before the section of the tenth International Congress at Berlin.

loid plate, allows each eye to see only its corresponding half of that plate.

On the right half of the surface there is presented to the right eye a single horizontal line. An exact prolongation of this line extends into the left half of the plate and this is marked zero. On the left side there is besides a series of lines drawn parallel to the

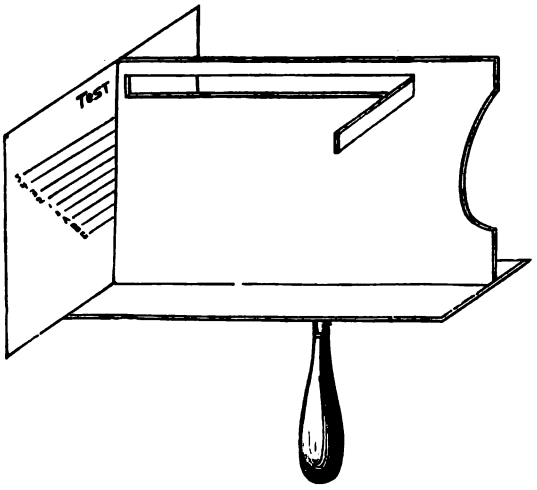

FIG. 1.

zero-line both above it and below it, each line being separated from the next one by a distance corresponding to (the tangent of) one degree, if the apparatus be held close to the face.* On looking at the plate one can detect with ease whether the "right" line is on a vertical level with, or, in other words, whether it is the continuation of the zero-line on the left side, or whether one line is apparently above the other. If the two are continuous the eyes are in their normal position of vertical parallelism. If one eye, however, deviates upward it will see its line apparently lower than the corresponding line seems to the other eye and the patient can read off immediately how many

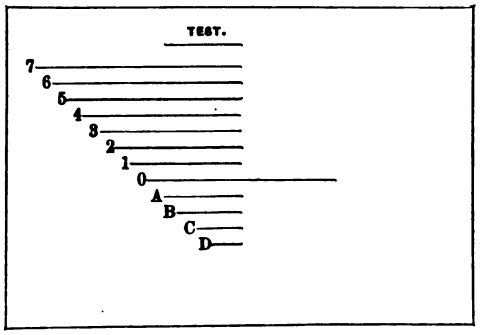

FIG. 2.

degrees or what fraction of a degree the line is displaced, and hence state in exact measurement what degree of vertical strabismus or "hyperphoria" exists. The lines above zero are numbered; those below are lettered to avoid confusion.

In order to test for lateral deviations a long slit or window is cut in the partition close to its upper edge, about 20 mm. wide, reaching from its further end to within about 6 centimeters of the facial end. At the facial end of the window there projects on the left side a shutter about 20 mm. wide vertical to the partition and parallel to the plate, which prevents the *left* eye from seeing the extreme upper zone of the left half of the plate. On this part of the plate a horizontal line has been drawn at the level of (the middle of) the window, termed the "test" line. When the frame is held at the proper height the right eye can see the test-line through the window, but cannot see any other lines on the left side, while the left eye can see all the lines on the left half of the plate, except the test-line which is hidden by the shutter.

Each line above the zero-line is longer by one degree than the one underneath; each line below the zero-line is also shorter by one degree than the one above it, while the test line is of the same length as the zero-line. With the apparatus properly held the right eye now compares the position of the left end of the test-line with the position of the left ends of the other lines as seen by the left eye. The patient is to state which line seems to him to extend toward the left as far as the test-line. If the two eyes converge properly for the distance the test-line appears of the same length as the zero-line, as it really is. If the convergence is insufficient one of the longer (numbered) lines seems of the same length as the test line, while if the convergence is excessive the test would appear to extend to the left only as far as one of the shorter (lettered) lines.

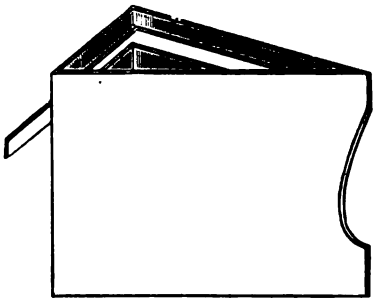

FIG. 3.

For the distance I use a chart on the wall geometrically similar to the plate just described. A separation of the lines by one centimeter corresponds to an angle of one degree when seen at six meters distance. As I cannot run a partition from the face to the distant wall I separate the two fields of vision by means of a triangular cell of wood, the apex of which—cut out to adapt itself to the contour of the face—is applied to the medium line of the face, while the base, which is as wide as the average interpupillary distance, namely, 62 millimeters, prevents either eye from sharing the field of vision of the other. The convenient length for the cell is 25 centimeters, and its height about 15. This partitioning box is aimed at the chart so that the right eye can see only the right half, while the left eye uses the left half of the chart.

* Five millimeters interspace between the lines corresponds to the tangent of one degree of a circle of 286.5 mm. radius. Deducting about 26 mm. as the average distance of the facial end of the partition from the center of rotation of the eye this gives practically a length of 260 mm. for the apparatus.

Again, the patient is asked whether the right line appears on the same level as the zero-line or not. In order to test for lateral deviation the right eye looks at the test line on the left side of the chart through a window cut into the right wall and right half of the base of the triangular cell, while a shutter projecting toward the left from the upper half of the base hides the test-line to the left eye. The indications are the same as with the apparatus for short range. *

I have examined some 50 normal eyes with this method, testing, at the same time, their refraction and muscular power. I have also records of about 150 cases of different forms of asthenopia examined by this method. Still I can speak only with diffidence of my results since real muscular asthenopia has been found to be a very rare affection.

On comparing my method with the prism test in many instances, I have often found that the deviation which my apparatus shows is less than that produced by prisms, but more constant in degree. Of course, it must be remembered that I measure angular degrees, of which a prismatic degree is only about one-half.

Of all eyes tested, only one-half retain their vertical parallelism when binocular vision is suppressed. The other half shows a tendency to vertical squint or hyperphoria varying from a hair's breadth to about three-fourths of one degree. Within these limits there is no reason to consider hyperphoria a source of morbid symptoms. Beyond one degree it can cause asthenopia, but this is an exceedingly rare occurrence. About one-fifth of all persons examined show a slight rotatory deviation which causes the right line to slant as compared with the zero-line. Although this may amount to even 15 degrees of rotation, I have never been able to trace any inconvenience to it. Both the vertical and the rotatory deviations are the same in degree for distance and short range in any one person.

Insufficiency of the externi, that is to say, exaggerated convergence—when less than two degrees—is likewise a harmless though not a very frequent occurrence. Beyond two degrees insufficiency of the externi has seemed to me to be a source of headaches, but my experience is as yet very small. This condition when observed for distant vision need not be accompanied by insufficiency of the externi for short range. It may even be associated with insufficient convergence for short range.†

Insufficiency of convergence is very common. About one-fifth of all persons show as much as one degree or even two for the distance and up to 6 or 8 for short range; and yet when we examine the power of adduction by Landolt's test we may find it quite normal; so that I would not be willing to lay much stress on insufficiency of convergence when determined only by means of this method or the prism test. But when it exceeds the limit mentioned the power of adduction will likewise be found wanting when properly examined.

I can only conclude from my clinical examinations that minor degrees of insufficiency are an almost normal occurrence and of no special importance, and that the higher degrees which lead to asthenopic symptoms are quite rare.

*The entire apparatus can be furnished by Mr. A. Coe, optician, 65 State St., Chicago.

†Similar results have been observed by Schioetz Arch. of Ophth. 1890, p. 157.

Pyoktanin, the New Antiseptic.

By F. C. Hotz, M. D., Chicago.

Early in the present year, D. Stilling, professor of ophthalmology, at the University of Strassburg, published a pamphlet on "aniline colors as antiseptics." In this pamphlet he stated that among the numerous derivatives from coal tar he had been experimenting with, he had found one chemical compound which possessed a germicidal power of so high a degree that he gave it the name "pyoktanin" or pus-killer.

This substance is furnished by Merck in two forms, the blue and the yellow pyoktanin; the blue pyokt. in the dry state is a dark olive green powder which, when moistened changes to a deep violet color; the yellow pyokt. is a dull yellow powder making with water solutions of all tints from straw color to dark amber, according to the strength of the solution. Both substances are very light and perfectly odorless; and the only disagreeable feature about them is that they stain everything they come in contact with. But as the stains do not last long and can be easily removed from the skin or from towels, napkins, etc., surgeons who have been using permanganate of potash, will certainly not reject this new candidate for antiseptic honors on account of its staining the hands, etc.

Prof. Stilling evidently made a very thorough investigation and studied the nature and properties of his new remedy in numerous experiments, which were carried on in three different ways:

1. *Bacteriological experiments* of which those are of particular interest to us which demonstrate the power of pyokt. to arrest putrefaction and to destroy pus cocci. Solutions of pyokt. were prepared of strengths varying from 1: 1000 to 1: 64,000 of each solution, 64 cubic centimeters were put in a small vial, and a similar vial was filled with pure water; then a piece of raw beef was placed into each of these vials, and all vials were put into the incubator at a temperature of 25 C. The vial containing the beef and pure water showed far advanced putrefaction after 24 hours, while the solution 1: 64,000 showed just the beginning of putrescence in 24 hours: the 1: 8,000 sol. in 72 hours; and all the stronger solutions did not show any change even after 6 days. Cultures of staphylococcus aurens on agar washed with a sol. of pyokt. 1:64,000 showed us further growth of cocci.

2. *Experiments on animals.* Solutions of pyokt., 1:1000 and upward, dropped into the eyes of rabbits, quickly stained the conjunctiva, sclera and reached, a few minutes later, the iris. It seemed to pass through the intact cornea without visibly affecting it; but where the corneal epithelium was scraped off the corneal tissue was colored by pyokt. very intensely.

If the dried powder of py. was dusted over the conjunctival sac the whole conjunctiva was deeply colored, and on the following day the epithelium was cast off in large scales, showing under the microscope a fatty degeneration of the cells.

Hypodermic injections of 20 centimeters of a sol. (1:1000) were borne by rabbits and guinea pigs without any discomfort.

Rabbits fed with pyokt. mixed with their food, by the grammes, showed no signs of distress or disturbance.

3. *Clinical experiments.* Prof. Stilling being an oculist, his clinical trials with pyokt. were made principally on eye patients. And there is scarcely any disease of the eye, from blepharitis and ulceration of the cornea to choroiditis and sympathetic ophthalmia, for which the drug had not been used and found very efficient, according to the report. Corneal ulcers which had resisted the usual treatment for weeks, were cured in one day by the instillation of a few drops of pyokt. solution. Hypopyum-Keratitis was healed so quickly by touching the suppurative area in the cornea with a pyoktanin pencil that Dr. Stilling pronounced pyokt. *the* remedy *par excellence* for suppurative keratitis. The suppurative process in panophthalmitis was promptly arrested by it.

The report also contains several surgical cases remarkable for their rapid recovery under pyoktanin treatment.

In a second paper published several months later, Prof. Stilling reaffirmed his high opinion of pyoktanin as an antiseptic as follows:

1. It is an antiseptic surpassing in germicidal power all other known germicides.

2. It is an absolutely non-poisonous substance.

3. It is highly diffusible, does not coagulate albumen, and therefore penetrates the tissues very readily.

These positive statements, coming from the pen of a well-known writer, and being backed by his numerous experiments and clinical observations, could not fail to attract attention and induce many to give the drug an extensive trial. As a result, it has been used for almost every external disease the human body is afflicted with, including eye, ear, nose and throat affections. Soon the medical periodicals brought clinical reports on pyoktanin, and as usual, the first reports were sounding the note of unqualified praise of pyoktanin's great and wonderful powers. But reports soon followed which presented the matter in much less glowing colors, and some writers even expressed a decidedly unfavorable opinion about it.

In the eye clinic in Halle, for instance, the experiments with germ cultures fully agreed with Dr. Stilling's bacteriological researches; but the results of their treatment were very different from those Dr. Stilling had attained in similar cases. If we divide, the report says, our cases into three class, the first class labeled "successful cases" would contain preciously few cases. The second class, marked "no evident advantage" would contain the majority of our cases, for all the corneal ulcers, if cauterized, would have shown just as good results as the pyokt. did in some cases. The third class would contain those cases in which the pyokt. did decided harm, and those cases were not so very few.

After reading these various reports, so conflicting in their estimate of the value of pyokt., I came to the conclusion the best way to learn something more definite about it was to try it. In the majority of my cases I used the yellow pyokt., which Dr. Stilling recommended as especially suited for the eye. It was used in the powdered form and in solution 1:100. In several cases the blue pyoktanin was employed.

Now, Mr. President, in making clinical experiments with a new remedy, you must always formulate clearly and precisely the question to which you want your experiments to give you a decisive answer.

To use a remedy indiscriminately in all kinds of diseases as we meet them in daily practice, and then to record it has cured this disease and seemed to make a favorable impression on that disease but failed in such and such diseases—this is not making a scientific experiment, but empiricism of the crudest kind, resting on that fallacious *post hoc ergo propter hoc* argument. Such reports are not worth the paper they are written on, and for this reason I do not think much of Prof. Stilling's report as far as it relates to a miscellaneous lot of diseases all being cured by pyoktanin; for I cannot be persuaded into the belief that in any of these cases the course of the disease was materially influenced by the use of a drug whose chief virtue is that of a germicide, unless we are to assume that every disease owes its existence to the agency of some germ.

Stilling having pronounced pyoktanin as the most reliable destroyer of pyogenous germs, and other investigators having also found that pyokt. promptly stopped the growth of pus cocci in culture fluids—the question of interest to us is: How does pyokt. assert its germicidal power in the living tissue? Does it arrest suppuration as readily as or even quicker than other disinfectants; and does it keep a wound aseptic as well as or even better than other antiseptics? These are the questions I submitted to my clinical experiments.

To test pyoktanin for its germ-destroying (disinfecting) power I selected suppurative affections of the cornea (abscess, hypopyum-keratitis, serpiginous ulcer) and cases of gonorrhœal conjunctivitis. As there is no doubt about the bacterial origin of these affections I thought them to be the most appropriate test-objects. In the gonorrhœal cases (4) the yellow pyokt. was used in solution (1:100) and freely dropped on the cornea and conjunctiva three times per day. Its action was really grand; in every case there was a decidedly improved condition within the first 24 hours; the purulent discharge was quickly changed to an inoffensive mucus, and where the cornea was involved the progress of the ulceration was checked at once.

In one case, for instance, both eyes were affected; the disease had first started in the left eye and its cornea was completely destroyed; but the safety of the right eye was also being seriously threatened by a long and deep progressive ulcer at the upper border of the cornea when I saw the case. The lids were œdematous, the conjunctiva red and swollen, and a copious discharge of purulent secretion. The eyes had previously been treated with iced compresses, sol. of bichloride, and the past five days with silver nitrate. But for all that the left eye was lost and the right eye was on the point of suffering the same fate. But twenty-four hours after the pyoktanin solution had been used the lids were smaller, the discharge reduced in quantity and changed in quality, and the corneal ulcer had not made any further progress. In another day the secretion had lost its puriform character entirely, and in ten days the corneal ulcer was healed and the lids and conjunctiva had recovered a normal condition.

It would be very interesting to test the efficiency of pyoktanin in the very beginning of gonorrhœal con-

junctivitis, to see whether its use at that early stage would cut the inflammation short and get the eye well before any purulent secretion had been developed. My cases were all past the earliest stage; the youngest one was three days old and the pus discharge already fully developed. But in three days this was changed by the pyokt. treatment to a very slight secretion of pale, thin mucus. The pyoktanin was then discontinued and the pus secretion did not return, although the chemosis of the conjunctiva, which was unusually intense from the beginning, did not subside for a whole week.

In all four cases of gonorrhœal conjunctivitis pyoktanin has done very well; and if it stands the test as well in future cases I should certainly regard it as the most invaluable acquisition for fighting the most vicious of all external diseases of the eye.

In corneal suppuration (twelve cases) pyokt., either in the solution (1:100) or in powder, always promptly arrested the march of destruction and caused a quick absorption of any hypopyum.

The very first case in which I tried pyoktanin, was a corneal abscess in the lower half of the cornea, which six weeks previously had been struck by a stone. The abscess had been opened and the pus was being discharged through the external opening; but the pus-pocket was still there; a small deposit of pus also was in the anterior chamber; the eye-ball was red and very tender, and the patient suffered from violent pain at night. With a probe I introduced a little of the yellow pyoktanin into the pus-pocket; that night the patient was free from pain and enjoyed a sound sleep for the first time in six weeks. The eye looked much better on the next day and a second application of pyokt. was sufficient to remove every trace of hypopyum and to close the corneal abscess.

When the suppurative inflammation had been going on in the cornea for some weeks; when the corneal tissue around the area of suppuration had been considerably swollen and smoky I have seen this portion of the cornea partly break down by a process of molecular disintegration, although the pyokt. had promptly checked the pus infiltration. At first I thought this disintegration might be due to an unfavorable action of the pyoktanin on the corneal cells; I discontinued its use in one case, only to find in two days the suppurative inflammation rekindled and a fresh hypopyum in its anterior chamber. Pyokt. was again applied and the hypopyum quickly disappeared and the suppuration was again subdued. In order to see whether pyokt. has any bad effect on the corneal epithelium I applied it to a few corneas with diffuse opacities. I thoroughly rubbed it into the cornea every day and kept it up for a whole week; but except a very transitory irritation these eyes showed no bad effect; their corneal tissue remaining absolutely undisturbed.

I think, however, the better plan of treatment in these corneal affections is to apply the pyokt. in substance directly upon the suppurating area instead of using the solution, because by the former way we can most thoroughly impregnate the pus infiltrate and consequently more certainly reach all the pus germs.

The results of our pyoktanin treatment of these corneal affections compare very favorably with the electro-cauterization and the sublimate lotions. To say the least, it arrested the suppuration as promptly as either of them would under similar circumstances. And when we consider that the application of pyokt. has to be made only once a day, while the sublimate lotion must be used every hour; and that the pyokt. causes no pain, while the electro-cauterization is very painful, even under cocaine, and certainly very repulsive to the patient, we may feel disposed to give pyoktanin the first place in the treatment of hypopyum-keratitis and allied affections.

The second question, "Does pyokt. keep a wound aseptic as well as or even better than other antiseptic?" was tested in operations for entropium of the upper lid and for relieving the abnormal tightness of the palpebral opening (canthoplasty). The operations were performed under antiseptic precautions, and after the wound had been closed with aseptic silk sutures, the pyoktanin was applied along the wound. At first I used the solution (1:100); in the last six cases, however, the powder was dusted first on the line of the united wound-edges. No dressing of any kind was used; only the application of pyoktanin was repeated once in twenty-four hours. On the third day (in some cases on the fourth day) the sutures were removed. Primary union resulted in all cases (twenty-five in number), and no pus was found in the stitch-holes, the black silk being as clean and dry as it was when put in. In operations for entropium this result is not unusual, because the wound being on the cutaneous surface of the eyelid can be easily kept aseptic by any antiseptic dresssing. But in canthoplastic operations suppuration in the stitch-holes has been a frequent occurrence, because it is very difficult to keep the conjunctival sac so thoroughly aseptic that pyogenous germs will not get into the tracts of the sutures from the conjunctiva, no matter how carefully we guard the wound against infection from the outside by antiseptic dressings. Now, if pyoktanin can render and keep these wounds aseptic we must assume that when applied to the outside it works its way right down into the tissues and makes of the whole depths of the wound a field on which pyogenous germs can not grow. This makes it a very valuable and useful antiseptic, as it certainly increases the comfort of our patients a great deal if we can dispense with all dressings and wrappings.

The operations in which I tested the antiseptic property of pyokt. are of course small as compared with laparotomoies, amputations and other major operations, and it is for surgeons to test this new antiseptic in such capital operations. Should it do as well in their operations as it has in mine we should certainly no longer hesitate in placing it above carbolic acid, because it is non-irritating, and above iodoform because it has no offensive odor, and above sublimate because it is non-poisonous.

The Rationale of Extension in Diseases of the Spinal Cord with Methods for Securing the Same.*

By G. Frank Lydston, M. D., Chicago, Ill.

It is hardly necessary to go into details regarding the history of the modern method of treatment of diseases of the spine by extension. It is my purpose in

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* Reprint from *Medical Mirror*.

the present paper to devote attention chiefly to locomotor ataxia, this being the disease for which extention of the spine has of late been most frequently employed. Not being a specialist, either in nervous diseases or orthopædics, my object in the publication of this paper is merely to offer what I consider to be a logical explanation of the action of extension of the spine in the treatment of diseases of the spinal cord, and to present a method of extension which I am convinced is the best. Extension of the spine as the treatment for locomotor ataxia was first introduced by Motchoukowski, of Odessa, in 1883. The method of extension which he adopted was by the use of the suspension apparatus originally applied in Pott's disease of the spine by Dr. Joseph Bryan, of Bellevue Hospital (now of Kentucky), from whom tradition says it was pilfered by the more or less celebrated Sayre, of New York. Within the past year the renowned Charcot, of Paris, has adopted this method of suspension in locomotor ataxia. Many prominent American neurologists have experimented extensively with the method and have indorsed it as a rational and successful measure of treatment. Dana and Morton, among the neurologists, and Charles F. Stillman, the well-known authority upon orthopædics, have written quite extensively upon the subject.

In an excellent article upon the mechanics of extension of the spine, Stillman presents the present status of extension in locomotor ataxia, summing up with the statement that "the precise effect of suspension upon the spinal cord and nerves in this disease is not as yet determined." Motchoukowski believes that the improvement noticed in his cases is due to "an increased activity of the circulation induced by suspension." He observed an increase of arterial tension with increased rapidity of pulse and respiration during suspension. He states also that in experimenting upon the cadaver he produced a lengthening of the spine between the second cervical and fourth lumbar vertebræ of two and one-half centimeters. The consensus of opinion has been corroborative of the foregoing, it being generally believed that the improvement in circulation and in the nutrition of the spinal cord to which the improvement in the symptoms is attributed, is due to a stretching of the spinal cord proper. Dr. Dana* indorsed the method in a rather lukewarm fashion and states that "it is a method of treatment which is inferior to others in our possession." Dr. Morton† says, "the subject is just entering upon its experimental and clinical stage, but if we accept the facts thus far reported and if they prove to be accurate in a large number of cases we shall be compelled to admit that the sum total of improvement is far in excess of that attainable by any previous means."

This author is seemingly on the fence as far as the explanation of the therapeutical action of extension of the spine is concerned. He asks: "What are the effects of suspension upon the healthy spinal cord? What the cause of the effect upon the diseased cord? Is it due to a diminution of the irritibility of the cord by stretching it? Can or cannot the cord be actually elongated?" Waitzfelder‡ says: "It is hardly reasonable to suppose that the cord itself is stretched, for it floats so freely in the spinal canal that the counter-extension of the weight of the body is notsufficient to produce that result without the greatest pain. It is more likely that the traction exerted on the spinal nerves in some way brings about a change in the circulation and nutrition of the cord, and the amelioration of the symptoms is due *to a lessening of the vascular supply of the cord and its membranes.** The *Journal of the American Medical Association* for September 7th, 1889, states that "the rationale of the treatment is not very evident. Experiments have shown that on the cadaver at least the vertebral canal is sufficiently elongated to exert slight traction upon the spinal cord by the nerve roots, but why this should be beneficial is not quite clear." Althaus thinks that "the improvement is due to a breaking up of adhesions in the meninges and neuroglia."†

I fail to see how any of the explanations of the mechanical cause of improvement in the nutrition of the cord which have thus far been offered in the consideration of the treatment of locomotor ataxia by extension, can be consistent with our knowledge of the anatomy of the spinal column, the spinal canal and its contents. I do not believe that it is possible by stretching of the spinal column to exert sufficient traction upon the loosely attached spinal cord either to stretch it, or secondarily to stretch the spinal nerves. It certainly appears to me absolutely impossible to exert a traction force upon the cord through the medium of the spinal nerves. Indeed, the structure of the spinal canal and its contents is such apparently as would defeat any attempt at direct traction upon the cord or its nerves. The spinal cord does not completely fill the spinal canal, its investing membranes being invested by areolar tissue and a rich plexus of veins and capillaries which separate the cord from the bony walls of its canal. As compared with the length of the spinal canal the spinal cord is relatively very short, extending only from the foramen magnum to the lower border of the first lumbar vertebra.

It is unquestionably true, as proven by experiments upon the cadavar, and as I have observed in experiments upon the living subject, that the spinal column can be extended. Now, if this extension produces improvement in the general circulation and in the nutrition of the spinal cord, and if, moreover (as I believe), it is not practicable to exert sufficient traction to stretch the spinal cord or its nerves within the limits of safety, there seems to be some other explanation of the action of extension. I believe that extension does produce both local and general improvement in nutrition, but I do not believe that this result is attained through traction upon the cord or the spinal nerves. The spinal column is composed of a number of firm, bony segments united together by elastic and inelastic structures. The elastic bonds of union between the vertebræ (chiefly the ligamenta subflava) are the media through which extension of the spine is possible within certain limits. The inelastic structures, although perhaps extensible within certain limits, are the principal agents in limiting the range of elasticity of the ligamenta subflava. In a general way it may be said that the vertebræ constitute the rigid segments of the spine, while the inter-

* *Medical Record*, April 13, 1889.

† *Medical Record*, April 13, 1889.

‡ *Medical Record*, April 13, 1889.

* Italics mine.

† Editorial.

vertebral tissues and ligaments constitute the extensible and more or less elastic segments of the spine. These segments constitute the walls of a canal which in its entirety is quite capacious. Admitting that it is perfectly practicable to lengthen the spinal column, it is a self-evident fact that the cavity in which the spinal cord and its investments rest, is increased in its capacity to a degree proportionate to the lengthening of the spinal column. The increase of capacity would be represented by a cylinder of a length corresponding to the increase in the length of the spinal cord when fully extended, with a mean diameter corresponding to that of the spinal canal. This will be admitted by all who believe that lengthening of the spine by extension is practicable. This fact having been admitted, its corollary is at once obvious. There is formed a vacuum of greater or less capacity within the spinal canal, the result of which is an aspirating or suction force along its entire length. The simplest of physical principles explains the rest. There is an active determination of blood to the part, with a consequent stimulation of the functions of the cord, and an improvement in its nutrition which lasts for some time after the tension upon the spinal column has been removed. An incidental element in the improvement of nutrition is a lessening of resistance to the venous flow. The effect of an increased *vis a tergo* and a diminished *vis a fronte* is at once apparent.

The improvement in the general circulation incidental to extension, if properly performed, is very evident even to a casual observer. The extremities, which in locomotor ataxia are cold and show evidences of faulty circulation, grow warm and redden during the continuance of suspension. This improvement in circulation will be. observed to remain for a greater or less length of time after suspension is stopped. The pulse will be found, during extension of the spine, at least by the method which I am about to indorse, to grow more frequent and fuller; respiration is also increased.

The so-called Sayre method, as advocated by Motchoukowski and Charcot, is in my opinion a very faulty one, and is by no means free from the element of danger. Some four or five cases, if not more, have been reported in which death has occurred as a direct consequence of shock of asphyxia induced by the suspension method. The method is certainly painful and the risk, considering the number of deaths that have occurred from it during its short existence, is considerable. The traction upon the spine is exerted in an indirect manner. It is produced solely by longitudinal traction, no attempt being made to take advantage of certain mechanical principles which can be applied to the spine. The method certainly entails hard work upon the patient, the first principle of treatment of locomotor ataxia, viz.: rest, being disregarded. The disproportionate strain upon the cervical portion of the spinal column is considerable. There seems to be a tendency to attempt stretching and straightening of the spinal column by traction upon this relatively short and fragile region of the spine. Not only is this region of the spine rather delicate, but traction upon it involves tension upon certain very important nervous, vascular and muscular structures of the neck.

In addition to the increased capacity of the spinal canal, incidental to extension of the spinal column, there is an increase of capacity due to a thinning of the various intervertebral structures. The straightening out, the stretching and unfolding of the various ligaments of the spinal column enhances the aspirating effect upon the spinal column as a whole as well as upon the spinal canal.

That stretching of the cord is not the essence of the beneficial result is, I think, conclusively shown by the circulatory effect of extension. Stretching of a nerve does not heighten its functions, *per contra*, it inhibits them temporarily. The results of stretching the sciatic show this.

In considering the mechanics of the treatment of locomotor ataxia by extension of the spine, it is necessary to consider the fact that, according to my theory, it is not necessary to bring to bear upon the spinal column extreme and painful tension, it being only necessary to bring about such a degree of lengthening of the spinal column as will secure the aspirating effect which I have described. Another point which should be taken into consideration (and this is especially pertinent in extreme cases), is the position which the patient involuntarily assumes. There is a tendency not only to flexion of the spine but of the limbs. Thus the spine is curved backward, so that the patient has a decidedly round-shouldered appearance; the forearm tends to become slightly flexed upon the arm; the hands tends to droop, the fingers being held in a semi-flexed position; the thighs somewhat flexed upon the abdomen; the legs upon the thighs—there is a decided curve of the feet. I am now describing typical cases which in many instances are bedridden. This general tendency to flexion, however, may be observed in cases of moderate severity.

This flexion of the spine is probably nature's method of supporting the spine in this disease. It is analogous to the hyper-extention of the spinal column observed in that form of Pott's disease in which the bodies of the vertebræ are chiefly affected. This condition of flexion of the spine must be corrected by our measures of extension, else the treatment will hardly prove efficacious. Obviously it would be very difficult to extend this curved column without reducing in a great measure its abnormal, and for that matter, normal curves. To attempt to straighten the spinal column by a pulling process alone is not compatible with the best results nor with the intelligent application of simple mechanical principles.

The method of extension of the spine introduced by Dr. Charles F. Stillman, of Chicago, not only permits of the application of the proper mechanical principles to the process of extension of the spinal column, but also permits of the application of the treatment while patient is practically at rest. It is a perfectly safe method and is so much more comfortable and efficacious than the so-called Sayre method that, a patient having once tried the improved process will scarcely submit to the pain and inconvenience incidental to suspension.

In explaining the advantages of his method, Dr. Stillman says: "The spinal canal is posterior to the main portion, *i. e.*, the bodies and the intervertebral cartilages of the vertebral column, and this is an anatomical feature to be emphasized, because on account of this arrangement it is plain that a given amount of traction exerted on the column in an anterior curved position (this anterior curving or flexion being the most extensive of any of its movements and freely permitted in the cervical and lumbar regions), must

result in greater elongation of the cord itself situated behind the vertebral bodies, than an equal amount of traction exerted with the spinal column in any other position.

As I have observed under the manipulations of Dr. Stillman, the spinous processes will be found to separate quite appreciably. The point to which I take exception in Dr. Stillman's description is the assertion that this method results in greater elongation of the cord. This I do not believe, for, as I have already claimed, I think it is the aspirating effect which is secured upon the spinal canal and not an elongation of the cord that produces the beneficial results. I am inclined to accept the assertion that traction upon the board with the patient in the prone position secures the greatest possible increase in the capacity of the spinal canal. A bending of the spine anteriorly will force the anterior edges of the vertebral bodies together to such a degree as to neutralize perhaps to a certain extent the apparent elongation of the spinal column as a whole, as evidenced by the separation of the spinous processes, but such a tipping together of the vertebral bodies will necessarily result in a relatively wide separation of that portion of the vertebræ enclosing the spinal canal. While this separation therefore is not a perfectly reliable criterion of the degree of extension of the spinal column it increases the capacity of the canal.

Stillman has recommended not only gymnastic treatment while the patient is subjected to traction upon his curved board, but also the application of electricity and massage.

Obviously these methods of treatment are most efficacious at the time when the patient's vitality has been heightened under the influence of proper traction; or, according to my views, under aspiration of the spinal canal by elongation of the spinal column.

In conclusion, I will present, and at the same time, indorse the résumé given by Dr. Stillman in a recent paper read before the Chicago Medical Society.* In addition to constitutional treatment in locomotor ataxia there should be employed:

1. Both the erect and recumbent curved traction frames as being superior both in principle and practice to the so-called Sayre suspension apparatus, employed by Motchoukowski and Charcot.

2. Traction while the spine is curved anteriorly to produce the greatest possible degree of elongation of the cord and spinal nerves (?) consistent with a requisite amount of rest, comfort, and freedom from danger.

3. Traction while the spine is curved posteriorly to increase the vital power.

4. Appropriate gymnastic exercises during the curved traction to restore impaired muscular function and to improve general nutrition.

5. Appropriate forms of electricity and massage while traction and rest are being practiced.

I would suggest, as an additional factor in the treatment, that such exercises be selected as will increase the chest capacity, as we thus take advantage of the improvement in circulation and hæmatosis incidental to exaggerated respiration. The pulleys introduced by Dr. Stillman are efficacious in this procedure, providing the proper means are secured.

* Trans. Chicago Med. Soc. Dec. 2d, 1889.

Society Proceedings.

Chicago Medical Society.

Dr. F. Billings.....*President.*
Dr. J. C. Hoag.....*Secretary.*
Pub. Com.— E. J. Doering, W. T. Thackeray, Jno. A. Robinson.

Chicago, November 3, 1890.

Dr. Geo. F. Fiske presented a paper on *The Phonograph in Testing Hearing*, which was discussed as follows:

Dr. Boerne Bettman: I think, as Dr. Fiske suggested, that the introduction of the phonograph, if it could be universally adopted, would be a very good thing, but I have the same objection to it that Dr. Coleman spoke of, namely, that the surroundings in a large city cannot be brought in harmony. We must have quiet, otherwise the phonograph will fail as have other instruments which have been heretofore used for determining the accuracy of hearing.

Dr. Geo. F. Fiske, in closing the discussion, said: it is very true that it is hard in down town offices to make a careful test of the hearing, and the only suggestion I can make to Drs. Coleman and Bettman is that they shall come up on La Salle Avenue where they can have quiet. I do not use my phonograph down town or attempt to make any careful tests in my office in the Chicago Opera House Block.

Dr. H. Gradle, Chicago, read a paper on: *A new method of determining Latent Squint and Insufficiencies of Ocular Muscles*, upon which the following discussion took place:

Dr. F. C. Hotz: Mr. President, I have listened with a great deal of interest to Dr. Gradle's exposition of his method of testing the power of the ocular muscles to ascertain any disturbance, because any improvement in our methods of examination is welcome. Theoretically, it strikes me, this apparatus is very well conceived. As to its practical working I know nothing.

In regard to the doctor's remarks of the frequency or infrequency of disturbances of the muscular equilibrium and their influence upon the nervous system, I agree with him in so far that slight deviations are found frequently, and that it would be erroneous to jump at the conclusion at once that this slight deviation of the eyes is the source of nervous complications, headaches, etc., the patient may complain of. We must not forget that we test at a relatively short range, even though we call it testing the direction of the visual lines for distance. When we suspend binocular vision with a vertical prism, or with Dr. Gradle's apparatus, the eyes are directed toward a comparatively near object, and parallelism of the visual lines is not to be expected, so that slight deviations which are very often found by this test are of no consequence. But when Dr. Gradle says that converging or diverging tendencies of two degrees or more are seldom of any consequence, I beg to differ with him. My clinical observations show that a disturbance of the muscular balance of two degrees is usually a source of nervous disturbance. As to testing at a short range of ten to twelve inches, this test

is of no value whatever. It does not furnish us any information of the muscular relations, because other factors come into play at that range, the principal one of which is the accommodation. If we take such marks as a little cross or a line on a card and suspend binocular vision, the patient can see that object at twelve inches, even if his accommodation is considerably relaxed. But this relaxation of the accommodation induces also a relaxation of the internal recti; the one eye will be kept looking at the cross while the other eye is directed toward more distant points; the double images will therefore appear displaced and indicate an insufficiency of the internal recti, which does not exist. The distant test is the only reliable basis for our examination and treatment of the anomalies of the ocular muscles.

Dr. H. M. Starkey. Mr. President: I have been very glad to see and hear this demonstration of a new method of testing, but having had no experience with it, I do not know that I can either criticise or commend it intelligently.

I should like to ask Dr. Gradle whether he had compared his results by this method of testing with those by the prism test and whether his comparisons bear out the assumption that there is a certain amount of confusion?

Dr. W. F. Coleman. Mr. President, I have had a little experience in the use of the apparatus with one patient. I could see at once an advantage in this instrument, you can readily get a result in a five minutes' test, you look at the lines and see how many degrees of variation there are either vertically or horizontally and you read it off as if it were a book. As to the relative merits of this apparatus and prisms I cannot speak, but I can speak most empatically of the defects of prisms. As an illustration, if we put a vertical prism before the eye we will produce double vision in a vertical direction, then the eye we will suppose will deviate laterally. We correct that lateral deviation by a prism of from two to ten degrees; which is the correction? Loring's view was that two degrees correct the manifest deviation, while the whole deviation was ten degrees. My own view is directly opposed to that, I believe that two degrees is the correction and ten degrees an over correction. This over correction is shown by the lateral deviation of the images during the first moments after the prism of ten degrees is placed before the eye and before the lateral muscle has time to act. Though Stephens says convergence of the eyes is equal to 50 degrees, I don't believe it, not one patient in one hundred would go over 25 degrees.

I believe with the doctor that deviations are very seldom of clinical consequence. We may examine a hundred non-asthenopic eyes and seventy-five of them will exhibit deviations. As to treatment, there are other means of treating deviations, I think, more satisfactory than tenotomy, which in my experience has not been at all satisfactory. As to the amount of deviation that may occur, a deviation (exophoria in accommodation) of 5 degrees is a very common thing and of no clinical consequence.

Dr. Geo. F. Fiske: In speaking of the subject, I, of course, cannot criticise the instrument, but I would like to speak of my own practical experience in examining students at Cornell University several years ago, when several of the students spoke of having their eyes operated upon in New York, but without any relief. I examined one hundred emmetropic students, and of these ninety had, by the prism test, an insufficiency of the recti interni for twelve inches exceeding three degrees, which would show that it is very common to have a slight amount of insufficiency.

Dr. Wood: Mr. President, I would like to ask Dr. Gradle if in his examinations these results are more constant than those obtained by using the prisms? It seems to me a great objection to the prism is that on Monday a patient will take a prism of four degrees, on Tuesday of six degrees, on Wednesday one of eight degrees and so on, which is a matter of great uncertainty, and if this apparatus removes that objection, I think it is quite worthy of use. Another thing strikes me in connection with it; it seems to me this instrument presupposes a great deal of intelligence on the part of his patient. I would like to know whether the inventor has found more difficulty in getting answers than by the old method. It strikes me it is much easier to say a light is a little bit to the right or to the left of another light, than to describe how many lines a certain line stands above or below another line. I think there was a great deal of looseness about the statements in regard to heterophoria; I believe it is absolutely necessary that the patient's refractive errors should be corrected, and I would ask the doctor whether the refractive errors have been corrected before the amount of heterophoria was determined, and if so in hypermetropia, whether a double correction was made or only a partial one?

Dr. Boerne Bettman. Mr. President: I had the pleasure of having this instrument demonstrated to me last summer; I used it once and since then have not had an opportunity to employ it again. I do not wish to enter into the discussion of the subject of partial tenotomies, but to lend my voice in confirming what has been said this evening in objection to this terrible craze which unfortunately has occupied the attention of too many oculists in this country. In the last few years I have examined several hundred patients in my office with reference to this faulty ocular equilibrium and in only one instance have I found it necessary to make a tenotomy of the external rectus muscle. In the majority of cases I have found slight insufficiency of the internal rectus muscle, two degrees and sometimes more. I have also noticed that the insufficiency would deviate from day to day and *could not be considered* a pathological factor. I think entirely too much has been done in this direction and I am glad to see that physicians are now getting around to the other side and are opposing Stevens' operation with all their might and main.

Dr. Robert Tilley. Mr. President: I have had the pleasure of seeing this instrument in Dr. Gradle's office and it seems to me to be constructed on theoretic and practical principles. I have had no opportunity to use it, and it is only by the actual use of an instrument of this kind that one can decide as to its relative merits. I wish to speak of a method of accomplishing what seems to be practically the same thing, which I adopted from a report made by some gentleman east, whose name I have forgotten. He put the bases of two prisms together and put the prisms thus combined to the individual's eye so as to produce three images of a given object instead of two, the joining of the two prisms being placed in the central part of the cornea in a horizontal line, one image is directed upward and another downward, and

the eye before which the prisms are not placed is then at liberty to recognize the uninfluenced image. This arrangement avoids the disadvantage in the use of the prism of sometimes turning it a little out of the direction in which it is intended to be placed. I had this little instrument made according to the description given and in addition I put a piece of red glass at the back of thc prism so as to give to the image influenced by the prisms a red color. This serves me for all practical purposes and I think it accomplishes the same end that Dr. Gradle's instrument does, and if so it is still more simple.

I would say further that the use of these two prisms practically settles the question of heterophoria in all its bearings at once, because if these prisms are placed properly before the eye, the third light seen by the other eye, is not influenced by the prisms and should remain in the middle between the other two lights; and if it does remain in the middle it may be assumed that there is no misdirection of the eye in either an upward or downward direction. If on the other hand the light appears in a vertical line, then there is certainly no misdirection of the eye laterally. It is desirable to look at a small light so as to facilitate the observation. I find, and it is evident that others find, a good deal of difficulty in examining patients relative to these questions. Some of them come with predetermined convictions so that it is almost impossible to get a true answer from them; and in others again there is a good deal of looseness in their answers, so I should think Dr. Gradle in error in saying that it is possible to examine an average patient on this point in five minutes. In this connection I should like to make a remark relative to a statement made once or twice here that the eyes abhor double images. That is certainly the case if we are looking around on objects in ordinary life. If we know there is one chair here and there appears to be two, then there is an effort made to bring the object to a corresponding point on the retina. But when you are looking at an individual light and place a prism before the eyes so as to produce double or triple images, I do not see that there is any necessary abhorrence to seeing two or three lights. I have had quite a little experience with prisms in that way, and I think the gentlemen who resort to them will find that they are a good deal preferable to an examination by the ordinary prism with the base upward or downward.

Dr. Henry Gradle, in closing the discussion said: Mr. President: In reply to the question whether I have compared the results obtained by means of my apparatus with the results of the prism test, I can say that I have done so to some extent and have satisfied myself that quite often the prism test will give greater deviation than my apparatus does. It must be remembered that prismatic deviation is about twice the number of degrees of angular deviation, so when I speak of two degrees deviation of my apparatus it means four degrees of prism deviation. Moreover I find that the records of my aparatus in different ways are more constant than that of the prisms; especially is this true of so-called hyperphoria which I have found to vary very little at different times, and many patients I have seen over and over again. The answers given for distance are quite constant, at least in the majority of instances on different occasions; the answers for hyperphoria, that is upward or downward deviation, agree quite accurately for distance and short range; so do those for rotary deviation. The records for horizontal deviation may be quite different however for distance and short range, and still agree on different days.

As to the difficulty of examining patients I can only say that with a patient of average intelligence I can finish the test within five minutes; of course I occasionally find one where it is more difficult, especially if one eye be of low visual power. If one eye has only about 1-8 or 1-10 of the visual power of the other an insufficiency is of course of no practical significance to the patient. I invariably make my tests for glasses first before I use this apparatus, and in those cases where glasses seem to correct all the difficulty under which the patient labors I very rarely use the aparatus. Where I do use it I test generally both ways, with and without correction by means of glasses, but have some diffidence about accepting the statements with glasses, for the reason that a slight inaccuracy in the position of the glasses will give rise to apparent insufficiency. This brings me to a point for which I think my apparatus may claim some little utility, namely, to settle the question why certain patients refuse binocularly glasses of a certain strength which they accept with comfort for one eye alone. Glasses of six dioptrics for instance are given to some one and he refuses them, being unable to wear them with comfort. If such a patient be tested by means of my apparatus it will be found that the association between the external muscles of the eye and the ciliary muscle is changed by glasses to such an extent that if we decenter the glasses temporarily we can get him accustomed to the prescription. I have been able to adjust glasses, which were theoretically correct, but which the patient refused as being uncomfortable, and by means of this apparatus I found it needed only slight decentering of the glasses either on account of incorrect position, or for the purpose of getting the patient accustomed gradually to the new relation between the recti muscles and the optic condition.

CHICAGO, Nov. 17, 1890.

Dr. B. M. Behrens, of Chicago, Ill., read a paper on: *Permanent Opening of the Drumhead and the Artificial Drumhead.*

It is a common belief that perforation of the drumhead is a final result of an otitis media or tympanitis, the closing of which is well nigh an impossibility in most cases. This sceptic view is held not only by the medical profession at large, but also by the otologists, about which we can convince ourselves best in the otological text books, where it certainly is mentioned, that the perforated drumhead shows a vigorous effort of closing, or trying to close, but not sufficiently to take it in employ of a natural closing. The *ultimum refugium* is therefore the artificial drumhead from the little cotton pellet to the rubber drum, that may in some cases bring a natural closure about by the continual irritating effect on the edges of the remaining part of the drumhead, but mostly is employed only with the effect in view of improving the hearing and protecting the middle ear. It does improve the hearing very often of course, but the protection of the middle ear is of so dubious a nature, that where it is possible to do better, it ought to be disrecommended with all our might. Where the per-

foration is of a large extent, the risks are less than in cases of small perforations, because we in the first cases can better master the ill effects that might be caused by the irritation of an artificial drumhead, but also here it is unquestoinably the best policy to try to effect a closing of the perforation. To dispel the existing skepticism, I have the pleasure of presenting some illustrations of cases that better will explain the possibilities of closing even large perforations, than words can do. It is a matter of course that such cases are few and far between, for that reason, that it is but seldom that patients will submit to a treatment lasting for months, not to speak of the uncertainty of the final result of the undertaking. In the course of several years, though, I have had so many good results that I dare lay down the rule, from which there are very few exceptions, that any perforation of any size in the membrane proper can be made to heal up, provided the remaining rest of the drumhead is not degenerated. I beg to remark that I speak of perforation in the membrane proper and not of peripheral loss or defect, neither of perforations in the Schrapnell membrane. The secret of this rests in the fact that it owes its great regenerative power to the elastic tissue in the membrane proper, while the Schrapnell membrane is entirely deprived of it.

As to peripheral loss or defect, the difficulty meets us in the bony part of the tympanic ring, being part of the aperture in the membrane. Any effort to bring a natural closure about here is without avail, and the only resort for improving the hearing and protecting the middle ear is the artificial drumhead. The majority of perforations, though, are the concentric or eccentric ones, either single or double—or more—and the more and consequently the smaller, the more tractable they are. As the supreme question always will be whether the hearing will be benefited by a closure, the artificial drumhead is applied as a test. For this purpose it is sufficient to apply a small cotton pellet in the opening, or what is better still, a small piece of sticking plaster over the opening in the membrane. If by this the hearing is improved, there is no doubt about the benefit derived from a natural closing, but if not, we are not so certain of the reverse. Politzer and many other authorities have laid down this rule. It must be taken with some allowance, as the result must depend on other circumstances, as, for instance, duration of the existing opening and possible changes in the middle ear, whether they be changeable by an after treatment or not. So, also, as to the question of seeking a closing where the artificial drumhead produces noises in the ear. It is very well for a text-book, but only there. It is self-evident that there is so much difference between an artificial drumhead and a natural closure, that results obtained by the first one are not to be compared with those obtained by a natural closure, because only under this the tympanic cavity with its mucous lining and chain of ossicles can ever return to the same condition it had before the primary lesion took place. The artificial drumhead is a foreign body whose irritating and pressing effect is too predominating to give us any correct idea as to the final effect of a closing. It is not out of place either to assume that a direct treatment of the tympanic cavity through the opening will and can do much good while the closing goes on, if proper remedies are employed. Are ill effects obtained after the closing, as, for instance, impairment of hearing and noises that were formerly not present, the after treatment will have to be directed through the eustachian tube with injection of proper medicines, or the resort can be had to surgical interference to bring about a permanent opening again. In the cicatricial tissue this is not a very hard task. But I must say right here that it is not likely that we will have to resort to these things if the first testing with closing the opening is carefully made. For this purpose I must recommend the sticking plaster again as being more reliable than the cotton pellet, or what is generally understood by the artificial drumhead.

If a considerable improvement of the hearing be produced by covering the entire opening with sticking plaster, my proceeding is as follows: The whole ear is first thoroughly cleansed with a Listerine solution and dried with borated cotton. After this I apply a 5 to 10 per cent solution of cocaine and let it remain in the ear for some minutes, after which I apply the borated cotton again to dry up the whole meatus. Next I put a cotton plug, corresponding to the size of the opening, inside of this to protect the inner wall of the tympanic cavity, and apply the galvano-cautery burner to the inner edge of the opening, only slightly so as to cause a superficial eschar. This done I remove the cotton plug and apply another soaked in glycerine and dusted with iodoform powder on the opening. Outside of this I apply a piece of oil-of-silk and cover the whole with borated cotton to make it all aire tight and so far as possible aseptic. By this packing the membrane is continually kept in a warm, moist condition, which is of paramount importance if we want a rapid healing to take place. This proceeding is repeated once a week till the opening is closed. Sometimes it is well to stop for a while and then take the treatment up again. In some cases I have tried chloride of zinc and argentum nitricum, but the best and quickest results I have obtained with galvano-cautery. It is a matter of course that it is to be used with care so as to not produce a larger opening, and must therefore not be applied again until the reaction has ceased. If by these means closure cannot be obtained, then we must look for hindrances elsewhere. It is quite frequent that the manubrium mallei is drawn inward on account of the weaker resistance of the perforated drumhead, or there is somewhere adhesion between the edge of the opening and the inner wall. In the first case I divide the tensor tympani so as to bring about a relaxation of the drumhead, and in the other case I separate the adhesion and apply a piece of iodoformed cotton to prevent a renewed adhesion. It might be inferred that this procedure is not without its risks. I can only say, that I have never met with any unpleasant effects from it, although I have practiced it for many years.

My excuse for bringing this view of mine to your notice, gentlemen, must be sought for in the fact that what I regard as an easy affair, is generally considered by the medical profession as unobtainable. As a rule an old perforation of the drumhead is considered a final condition, and therefore it is left to the patient to find out for himself whether an artificial drumhead gives him any benefit or not. It is of little consequence that the patient is at sea and falls an easy prey to the vender of rubber drums, but the medical profession cannot condescend to this as a final victory.

If the artificial drumhead would compare, for in-

stance, with the correcting glass for a disturbed vision, it might rightly be suggested to let well enough alone, but there is no comparison, as the artificial drumhead sometimes endangers life, which the glass does not. Very often an acute otitis media sets in, produced by applying a soiled drumhead to such a delicate part as the tympanic cavity. Patients who are compelled to wear it for the sake of improving their hearing, may be ever so scrupulous in cleanliness, it cannot help but that some harm may be effected, because it concerns a locality which is not open to investigation and self-control, and we know for a certainty is never aseptic. Ignorance is bliss here and has its analogy in the utter carelessness that is manifested by the laity in using the ear as a receptacle for almost anything with which to relieve a toothache or the like. Resorting to the artificial drumhead as the *ultimum refugium* ceases also further investigation as to altered conditions in the ear, brought about either contemporary with or after the primary lesion took place. By trying to close the perforation we may probably do more good than the artificial drumhead can ever accomplish.

Last but not least, there are a large number of our patients that for the reason above mentioned, cannot and ought not use the artificial drumhead at all. I mean the children. To them it is an annoyance more than a benefit, and is therefore not much appreciated. The above mentioned lack of control makes the use of it more dangerous, not only from carelessness, but also from the weaker resistance against irritation in the tissue of a child's ear, viz: The membrane and the tympanic cavity.

To prevent any misunderstandings allow me to say, that only perforations as sequelæ to an inflammation in the membrane proper, or in the tympanic cavity, are thought of and not deeper or more serious lesions with destruction of hearing bones, for instance, the remedy for which a closing of the aperture would only concern the protection of the middle ear, and rather impair than improve the hearing.

Dr. Boerne Bettman: Mr. President: I was very much interested in the paper of Dr. Behrens. The new point he emphasizes is the application of a piece of sticking plaster to cover the perforation and produce its closure. I have never found it difficult in my practice to cause eventually a healing of the perforation. In fact the difficulty has always been to keep these perforations open, which we frequently try to do in cases of otitis media catarrhalis, where it is our purpose to make an artificial opening in the drumhead to improve the hearing. It is a rare thing to come across a perforation of long standing. I see the cases that the doctor has cited have existed from three to ten or fifteen years, but these cases as stated before do not often occur, and as a rule it is not difficult to produce a healing of the perforated drumhead by the galvano-cautery, freshening the edges of the membrana tympani with a knife, or applying nitrate of silver. When a perforation has existed for a number of years the ordinary observation is, that when it closes the hearing is usually impaired, and therefore in a number of cases it is our object to keep it open by all means. It is best, as far as the anatomical condition of the middle ear is concerned to close these perforations, because the mucous membrane is not then exposed to the influence of the air and other extraneous matter. I have never employed the sticking-plaster, but I have frequently used other adhesive remedies—collodion for instance, I have used a number of times, and found that the hole in the drumhead would close very rapidly.

Dr. W. F. Coleman: Mr. President: If I understand the points of the paper that were new, the galvano-cautery was the principal agent used to freshen the edge of the wound, and incidentally adhesive plaster was put over the opening. If we wish to produce a permanent opening in the membrane that is not perforated for the purpose of increasing the hearing, it is one of the vexed questions how to accomplish it; it is one of the most difficult things possible to do. I have destroyed half the membrane with galvano-cautery and mobilized the stapes for this purpose, and in three months the membrane healed. It is acknowledged by aurists to be one of the most difficult things possible to keep an opening that is artificially made open. On the other hand, it is very difficult in my experience, to close an opening that is made by a chronic purulent process that has existed for a number of years. The text-books frequently tell us that these openings close, but my own experience does not agree with that. In cases of five, ten or twenty years' standing, there is cicatricial healing of the wound; but in recent cases of perforation of the membrane in which the purulent process is of only a few weeks' or months' standing, healing goes on practically without difficulty. As soon as the purulent process in the middle ear is checked the parts will close. I am glad to see from the papers the doctor has passed around, that in all cases in which he had closed the membrane the hearing had improved; that is a very favorable result as far as the hearing is concerned, but sometimes when the opening is closed the hearing is impaired. It is desirable to close the tympanum for the purpose of protecting it from atmospheric changes. It may be protected by a pledget of cotton, or it may be protected as Blake has done—by simply pasting a piece of writing paper, moistening the writing paper and applying it to the opening, and the healing has been very much encouraged by the application. Isinglass plaster also answers as a means of closing a perforation. Artificial membranes, while they are very popular, are in my experience useful in only a small proportion of cases. In the first place, they cannot be used while a discharge is going on; in the second place they will not be tolerated by many patients; and in the third place, in a small percentage only will they improve the hearing. It is of course more desirable to heal the perforation than to apply any artificial membrane. I have never tried the method of Dr. Behrens, but it seems a very rational and clinical procedure. If you freshen the cicatrix by any active agent, you at once put the membrane in a condition of a fresh case of otitis media, which has a tendency to heal.

Dr. F. C. Hotz. Mr. President: A short time ago I received a pamphlet from a doctor, whose name I cannot recollect, giving his ten years experience of "myringoplastic," as he calls it; that is, restoring the membrana-tympani. He started out first trying to close the opening by such means as applying some irritant of one kind and another and covering the opening with bits of gold-beater's skin or court-plaster; he found this method not satisfactory, however, and went to work to close up the perforation by graft-

ing in a piece of skin. He took this graft from the back of the ear, and freshened the edges of the perforation and then put the graft in just to fill out the hole, and thus close the perforation. He also reports that in a certain number of cases the hearing was improved. His main points for justifying these operations and the attempts at closing the old perforations were the same as those advanced by Dr. Behrens; namely, in the first place in some cases, few and far between, the hearing could be improved, and secondly, that it is of great importance to protect the mucous membrane of the tympanic cavity against the entrance of the atmosphere. Now that is theorizing. If we take a practical view of the matter, is it actually worth all the trouble to subject the patient to such a procedure? It is acknowledged that the hearing is improved in very few cases; for the disease which destroys the drumhead to such an extent and so thoroughly as to leave a permanent perforation, as a rule has done serious damage in other parts of the conductive apparatus so as to interfere with the hearing more or less, whether the drumhead is restored or not.

I understand from the doctor's remarks that in his cases the perforation had existed from five to fifteen years. The mucous lining of the middle ear had been exposed to the atmosphere all this time and probably had stood this exposure well until the doctor discovered a big hole there and thought it necessary to close it up. I cannot see from my experience that where the disease has thoroughly ceased and the tissues of the middle ear have recovered as far as they can, that exposure to the atmosphere or entrance of air to the middle ear is a source of any trouble. If the patient has another attack of otitis, I dare say it is not produced by the entrance of air into the ear any more than the original attack with the membrana-tympani closed and protected from the atmosphere. When the whole membrana-tympani has been destroyed for many years you see the wall of the tympanic cavity covered with a pale membrane which looks like anything but a mucous membrane; it is dry and resembles the integument more than the mucous membrane and certainly can tolerate contact with the air just as well as the skin; therefore I do not attach much importance to these attempts at closing the perforations.

Dr. H. M. Starkey. Mr. President: There is one class of cases of perforations that has not yet been spoken of, and I call attention to them hoping to hear more about them; that is where there is tuberculosis of the membrane. These cases we all know are not at all amenable to treatment. The text-books and monographs tell us that they bear interference very poorly, so that by any attempts to improve the condition of the parts the patient is made worse and more uncomfortable, and apt to be subject to more pain. A case came under my observation this summer which bore all the evidence of tubercular inflammation. The case could be seen only a few days as the patient was going away. The patient came of a phthisical family, and all the symptoms of the ear trouble were such as to indicate that there was tubercular ulceration of each membrana-tympani; and there was destruction in one ear of at least one-third and in the other of at least one-fourth of the membrane. This patient was exceedingly hard of hearing; her hearing was not above one-fourth normal, and she was almost crazy from the constant and severe tinnitus. Knowing the difficulty of doing anything with these cases it was with a great deal of hesitency that I undertook the treatment, but in the few days in which I saw her I tried a number of means; cleansing the ear thoroughly, and yet not applying anything of an irritating character. I found very quickly that by the application of non-irritating substances to the perforations the patient's hearing was at least doubled and the annoying tinnitus very much reduced. In the few days the patient was under my observation I taught her how to use borated cotton pledgets, putting a bit of cotton on a piece of fine wire so that she could use that as the artificial drumheads are used. She was very much delighted with the effect; and on passing through the city three weeks ago, she called at my office a moment to tell how much better she was, but did not stay long enough for me to ascertain if there was any decrease in the amount of ulceration.

This case illustrates how a person, even with tubercular ulceration of the ear may derive much benefit from simple means like that. When she was in the office the second time she was using these little pledgets of borated cotton, renewing them once a day, with both comfort and diminution of the tinnitus, and without any pain or soreness being occasioned by the application.

Dr. B. M. Behrens, in closing the discussion, said: Mr. President: Before I conclude this discussion allow me to present my thanks to Dr. Coleman. He has stated the need of something better than an artificial drumhead much better than I could. I have tried all these different proceedings—scarifications, paper disks, cauterization and other substances—almost everything that has been given in the text-books and papers during the past fifteen years, and I have been disgusted with all of them. The cases I have presented here are true, as far as the size and results are concerned.

Dr. Hotz's skepticism is the same as the skepticism I speak of in the paper—there are lots of skeptics. I can only recommend that this proceeding be tried before it is condemned.

I say in my paper that this proceeding is not to be employed in cases where the hearing is not improved by trial with sticking-plaster. Of course this is only to be used as a test to cover the membrane, because that is much better than anything else. The artificial drumhead is too heavy to give us any right opinion about the final effect. There are many cases where the hearing is not benefited, and in such cases this proceeding is not to be employed except for the protection of the middle ear. If the opening in the drumhead has lasted for many years, it is likely that the exposure to cold air will result in a damaging effect to the middle ear, but the principal thing would always be when the hearing is improved, or if the patient wants it closed we can do it. When we put on the sticking-plaster there is likely to be the same condition that will result by causing natural closure.

I have here an illustration of a case that I forgot to send around. It was a very big perforation that had closed of itself with cicitricial tissue. The hearing was very much impaired. It is an illustration of such cases where the closure impairs the hearing. I gave the patient his choice as to whether he would have it opened again or not but he said he would not like to have it opened as nature had closed it, but of course

he would like to have the hearing improved. So I concluded to make a trial with cauterizations between the cicatricial tissue and the natural tissue, and there was marked improvement in the hearing.

Dr. C. W. Earle read a paper on: *Bromoform in Whooping-Cough,* which was discussed as follows:

Dr. J. M. Patton. Mr. President: My experience with this remedy has not been very extensive; I have given it in some eight or ten cases, but as I did not keep any notes of the cases, what I have to say will be entirely from memory. I believe that whooping cough is generally conceded nowadays to be a contagious or infectious disease. Both of these terms are used in writing of the disease. I think infectious is the better word; it does not exactly need contagion to transmit the disease. It is also conceded by most writers that it is of microbic origin; the exact character of the microbe that produces the disease I believe nobody has ventured yet to define. It is also supposed to be due to irritation of the terminal ends of the nerves. Exactly in what way the irritation is produced we are unable to say, principally because physiology has not demonstrated the exact method in which these nerves terminate.

The remedy bromoform has been used for a number of years for various purposes. It was first introduced as an anæsthetic away back in 1849. In its active preparation it is a very heavy liquid, rather oily, does not mix with any of the usual solvents and is not disagreeable to the taste. I have used it in some eight or ten cases, and perhaps the reason why my experience has not been as favorable as Dr. Earle's is that my cases were generally obtained in a later stage than his were, and several of them, if not the majority, had complications, such as capillary bronchitis, catarrhal pneumonia, or the pertussis had complicated some other trouble, so that it was a very difficult matter to tell the exact effect that any remedy would have in individual cases. At the same time I was using bromoform in private practice, I was using belladonna on cases I was treating in my clinic at the Polyclinic, and I was not able to determine that the bromoform was of any more utility than belladonna; I think on the whole the results were about the same. In two or three cases there was marked diminution in the number of spasms in from two to four days. In others there seemed to be absolutely no effect from the bromoform. On the whole I think the remedy is a good one, and while I do not believe in getting at all enthusiastic over a remedy of that description for that kind of disease, I believe it will well bear a thorough trial. It can be administered in liquid form, or dropped on a piece of sugar. The trouble in administerng it in liquid form is that it is very heavy and does not mix with anything, but drops to the bottom of the bottle, and it is impossible to give it in any definite quantities. Stepp, of Nuremberg, was the first to write on the bromoform treatment of whooping-cough, and has been endorsed by Senator. Stepp's formula was, bromoform 0.66 grammes, alcohol 2.00 grammes, syrup 15.50 grammes, aqua 93.00 grammes, of this the dose was one teaspoonful every hour. It can also be given by simply dropping it in a little syrup or water and pouring it down the child's throat. I think a good way of giving it is to drop it on a piece of lump sugar. The remedy is somewhat expensive now, but it can be obtained in all the drug stores. It is very easily decomposed, must be kept in dark bottles carefully stoppered, and away from the heat. It turns of a brownish red color as soon as decomposed, contains free iodine and is not fit to use; on these accounts it is well to give careful directions in regard to its use.

Dr. N. S. Davis. Mr. President: I would simply say that I have not been engaged in family practice for a few years, my business being restricted altogether to office and a moderate consultation business here in the city, I have consequently had the care of very little whooping-cough, but I used to treat a great many cases, and for the last twenty years the most satisfactory treatment I have been able to find was some mild anodyne expectorant that the patient could take frequently to lessen the irritability of the mucous membrane. I usually added about as much belladonna as the patient would bear without producing disagreeable dryness of the mouth or dilatation of the pupil. Take a little compound syrup of squills with the addition of a little tincture of sanguinaria and as much paragoric as you have of both of the others and add to them enough belladonna to give moderately specific effects and give it once in three or four hours in the active stage of whooping-cough. I gave the patients two doses of quinine, the taste of which was covered by powdered licorice root, one morning and evening. A dose for a child of from two to three years of age would be from one to two grains of quinine in the morning and another dose in the evening. I have seen whooping-cough moderated in its violence by such a treatment and the paroxysms reduced so much that after the evening dose of quinine in very many instances they would rest nearly the whole night before they would begin to cough again. It does not always produce the same effect but it has been more satisfactory than anything else I have used.

I have not used the remedy mentioned here to-night. So far as we know the natural properties of bromoform and from the constituents of which it is made we would be led to expect that it would combine the effects of an anæsthetic sufficient to diminish the nerve sensibility and therefore greatly diminish the paroxysms of whooping-cough so far as they depend upon the irritation of the nerves.

Dr. . Mr. President: I have used bromoform in three cases of whooping-cough; one case was twins, well nourished, three years of age, of Hollandish parents. I was called in on the fourth or fifth day of the disease, the paroxysms were severe and vomiting ensued after each paroxysm. They were at that time having about twenty paroxysms a day. I prescribed bromoform in two drop doses four times a day for three or four days when the paroxysms were reduced to five a day and at the end of two weeks had almost ceased. The other case was an infant ten months of age, but after using bromoform for three or four days bronchitis set in and I abandoned its use. But it acted most happily in the case of these twins; with one of them, after about two weeks' treatment there was considerable intestinal disturbance, and I would ask Prof. Earle whether he has had any of that disturbance in his cases? With the other child there was no disturbance of that kind.

Mr. President: One more point in consideration of this remedy is in regard to the manner of its action; I think Dr. Earle is right in his statement that its

action is antispasmodic and not as a germicide. In experiments on animals the result with this drug has been to lower vascular pressure (probably by vasor motor paralysis, without special influence on the heart), and its action in whooping-cough seems to be entirely antispasmodic, it probably has no special action as a germicide.

I have used it in only two cases of chronic bronchitis in adults but without any effect either in diminishing the amount of secretion or alleviating the cough.

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CHICAGO, Dec. 1, 1890.

A report was read of *A Successful Operation for Cerebral Hernia*, with an exhibition of the patient, by Dr. J. Frank.

On the 11th of last August the mother brought this little three year old girl to the Cook County Hospital, saying the child was kicked by a horse which was shod. On examination we found paresis of the left arm and leg. The right pupil somewhat larger than the left and both reacting to light. Stupor was well marked. After shaving the head, the scalp was found to be intact, with the exception of its being discolored. On account of swelling, a depression of the skull could not be determined.

The stupor and paresis justified an exploratory operation (Epeam operation). After the operation there was an immediate improvement of the paresis and and stupor. Several days after the operation the child was able to sit up in bed and play.

Where the dura was destroyed and over the region where the drainage was placed a hernia developed, which kept on growing larger until it developed to this size which you see in this bottle. It has shrunken some from being placed in alcohol.

As the hernia kept on increasing in size, an operation was decided on, which, if I do not err, has been done for the first time according to the manner to be described. Text-books say very little about cerebral hernia, and what they have to say is very discouraging.

The method adopted in this case is as follows: The scalp was dissected from the tumor where it was reflected and firmly united.

The dissection was carried on until healthy brain tissue was reached, when, with the handle of the scalpel, the hernia was cut away, during which time cerebral fluid oozed out. As soon as the hernia was removed the brain filled out the empty space. A smart hemorrhage now succeeded, which had to be controlled by packing. It was seen that the dura could not be brought together, so the edges of the scalp were freshened and united with interrupted sutures. A compress was put over the wound to keep the parts as quiet as possible and for the purpose of securing primary union, as upon this rested the success of the operation. The evening of the following day the child had a slight general convulsion, commencing in left arm and leg, followed by stupor which lasted about six hours, which apparently was produced by the compress being strapped on too tightly over the area where the brain pulsated against the scalp.

Four days after the operation the child was running about the ward. In a week the stitches were removed. Everything looked favorable until about the second week after the operation, when a small point in the middle of the line of the incision commenced to slough. Fortunately the sloughing did not extend very far, leaving the parts in a fair condition.

From the appearance of things I am inclined to believe the hernia will not return any more, as that portion of the brain which came up to the level of the scalp where the sloughing took place is about all covered over with new skin. My reasons for reporting this case are two-fold:

1st. My method of operating.

2d. The tolerance of the brain to surgical proceedings where the teachings of Lister are followed out to the letter.

Exhibition of specimens of *Abdominal Hysterectomy*.

The case that I now wish to present to you is that of a lady 20 years of age, who was married January, 1889. At the age of 13, while performing on a horizontal bar, she fell, sustaining some internal injury of which she knows little except that it had something to do with her organs of generation. Just about this time patient began her menstrual life. The menses were irregular and painful until two years ago, when they became more regular but more painful. The pain latterly being continuous, patient entered St. Elizabeth's Hospital February, 1889, and on examination a tumor could be felt posterior to the uterus, the uterus being fixed and antiflexed. She was treated with glycerine tampons in the knee-chest position and hot douches were given. March 25th she left the hospital in a much improved condition.

On October 12th, this year, she re-entered to the hospital with her previous symptoms exaggerated, the pain being so severe that morphia had to be given constantly in order to keep her quiet. On examination, both ovaries, easily felt, were found firmly bound down and enlarged, the uterus belng fixed. On October 18th an operation for the purpose of removing the ovaries was undertaken. After opening the abdomen everything was found firmly adherent. With a great deal of difficulty and tearing, the right ovary was released from its bed and removed.

In attempting to remove the left ovary, although considerable tearing was done, it was found so adherent to the uterus that I deemed it advisable not to leave it as an unfinished operation, but proceed at once to remove the uterus with it, especially as there was a cyst connected with that organ. In removing I proceeded in the following manner: I clamped the broad ligaments on both sides clear down with forceps; the bladder was dissected away, and the cul-de-sac was opened. The remaining portions where the uterus still hung on each side were clamped from above and cut away. Ligatures were now applied and the clamp forceps removed. A large rubber drainage tube was passed from above through the vagina and vulvo. The ordinary methods of closing the wound and dressing were adopted. The patient, as you can see for yourselves, made a rapid recovery and is relieved of all her troubles.

I will now show you the uterus and ovaries and also the drainage tube used.

My object in bringing this case before the Society this evening is to show the use of clamp forceps in hysterectomy by the supra-pubic method, the usual method being, as Freaund describes, by tying the broad ligaments, which is a very lengthy and difficult proceeding.

The small incision used in this operation shows how much can be done contrary to the teachings of the German laparotomists who advocate long incisions, opening the abdomen freely, laying the intestines out and "*getting inside.*"

Dr. J. Frank. Mr. President: Through the kindness of Dr. Howard I was given the opportunity to remove this calculus, which lay in a diverticulum of the dilated portion of the prostatic urethra. The doctor had intended making an external operation, but at my suggestion he allowed me to use Greenfield's endoscope and forceps. It was removed very easily and without trouble, all the gentlemen present being able to see the stone through the endoscope.

Dr Harris. Mr. President: The doctor said that this was the only case where this operation—cutting off a hernia cerebri—had been performed. I would simply call his attention to the case recently reported by Adams and to another by Annandale. If I should be so presumptious as to criticise a case with such a good result, it would be for making a hole in the scalp flap directly over the wound in the skull for drainage. It would have been better, I think, to have carried the drainage out under the edge of the flap, a short distance from the opening in the skull, as it is well-known that one of the best preventatives of this accident—viz.: hernia cerebri—when the skull and dura are opened is a good sound scalp flap to cover over the opening.

Dr. Tilley. Mr. President: Dr. Frank said there was general paralysis of the left side. I would like to ask if there was also an anæsthesia produced? The region of the cortex involved is supposed to be associated with general sensations.

Dr. J. Frank. In closing the discussion, said: I said this was probably the first hernia removed by the method I reported.

As far as drainage is concerned no surgeon of experience in brain surgery would be foolish enough to cover over a lacerated and contused wound involving the dura and brain substance, or go away any distance from it to get drainage, because no matter where he would go the brain tissue would follow up, and if he made a hole further away the brain tissue could just as well follow down into some other hole. As to making a direct drainage, it is well known that in most of these cases where the brain has been lacerated, the bones driven down and the dura destroyed, the patients die from meningitis, and in order to avoid this, drainage was purposely made direct, so that every bit of serum or fluid would flow away. It is not in the brain, where we have a hard skull to deal with, like it is in other parts of the body, where we have soft tissue and can take the forceps and carry the drainage through healthy tissues.

I think in this case the child's life was due to the direct drainage that was made.

There was not any anæsthesia; the child could not talk and was in a stupor, but with a smart prick of a pin, or a pinch, there was a little reaction, showing that some sensation was present.

Dr. F. C. Hotz read a paper on *Pyoktanin, the new antiseptic*, which was discussed as follows:

Dr. M. L. Harris. Mr. President: I have used pyoktanin in surgical practice quite extensively for several months. I have used it in contact with almost every tissue in the body, from the brain to sinovial membrane, with the exception of the eye. I have given it a pretty thorough trial, and with a good deal of satisfaction. Of course in cases that are aseptic we have no use for pyoktanin, but it can be used in septic cases. In abscesses it has given good satisfaction—cleansing and packing them with gauze soaked in pyoktanin solution. That pyoktanin is a germicide I think is doubtful because, much to my surprise, when I accidentally looked at a solution of 1:500, I found it swimming with bacteria, and a stronger solution of 1:250 I also found swimming with bacteria. A solution of pyoktanin in pure distilled water will be found swimming with bacteria after a few days, and they will live in it for weeks. I have had a solution for months and found in it various kinds of bacteria, all stained and just as lively and frisky as any I ever saw. In making experiments upon wounds, if, for instance, you dust an old suppurating ulcer with pyoktanin powder, and it is exposed to the air so that it will dry, you will find a nice dry crust entirely covering it, and the surface under the crust will heal just like the healing under a scab, but under this crust will be a little secretion. If you take off the crust and look at a little of this secretion with the microscope you will find it made up of serum and leucocytes, and containing various kinds of bacteria, all stained, but the ulcer will heal all over and there will be no sepsis.

Pus cavities should be washed thoroughly with a strong solution of pyoktanin, but I find it necessary to use a great deal stronger solution than Stilling advises. One of the properties of pyoktanin is that it is absolutely non-irritating.

I have just had a case of compound fracture of the skull which was operated upon under very unfavorable circumstances. There was undoubtedly sepsis at the end of two or three days with a temperature of 103°. I washed it out with a strong solution of pyoktanin when the temperature fell at once and the next day was normal, and has remained so ever since, primary healing taking place. I think without doubt that pus destroys pyoktanin chemically, because if you will take a piece of gauze wet with a solution of pyoktanin and pack a suppurating cavity, wherever the pus comes in contact with it for any length of time it discolors the pyoktanin similar to dilute acids. While as I say I do not think it can be called a germicide, because of the fact that bacteria grow very nicely in it, still it does have some effect upon septic processes, just what I do not know. The more I use it and experiment with it, the better satisfaction I get in septic cases.

Dr. Robert Tilley. Mr. President: My experience with pyoktanin has been somewhat limited, but at the same time I have had a little experience, but not so much with the eye. Dr. Stilling's experiments—curing everything—rather discouraged me in regard to the eye especially; but I have used it on certain very obstinate cases in the ear, and my experience so far certainly leads me to expect that aniline colors will come to serve quite an important purpose in suppurative surgical cases. I regret very much that Dr. Stilling has given it that sort of propriatory name and conferred the privilege of manufacturing apparently on Merck. I have heard it claimed that it differed very little if any from methyl violet, in consequence of which I have tried methyl violet with apparently the same results. My experience has been almost wholly confined to its application in the form of pow-

der. As Dr. Hotz has stated, the tissues are stained quite a good deal with it when used in strong solution, and it becomes very troublesome and unpleasant on the hands; it takes quite a little time to get them clean, and certainly it is very unsatisfactory to go around with the hands stained; whereas, if used in the form of powder, that can to a very great extent be avoided. I am encouraged from Dr. Hotz's experience with reference to its application to the cornea, because certainly if it does as well as the actual cautery it would seem to be preferable. Patients generally have a decided objection to the application of a red hot wire to the cornea, and it requires a good deal of persuasion before one can induce them to submit to it. They do it more on the Continent than we do, because their patients seem to be more confiding. I would simply repeat that so far as my experience has gone it seems to be very encouraging and successful.

Dr. C. A. Wood. Mr. President: I started out as an enthusiastic admirer of this remedy. My first use of it was in a case of progressive ulcer in an old lady of 75, and along with the ulceration of the cornea, which was in the lower outer quadrant, there was a considerable amount of purulent conjunctivitis. The disease had been going on for ten days, was getting worse and was, to say the least of it, very unpromising, but after three or four applications of methyl blue in a solution of 1:1000, this case got entirely well, and in ten days afterward the corneal ulcer was almost healed. I have had a similar experience in three or four other cases of inflammation of the cornea with pus formation, and I think the name given the remedy is a very appropriate one.

It seems to be perfectly useless in trachoma and in many other external diseases of the eye, and in my hands it has not proved effective in external diseases of the ear. I want to say in regard to the remedy that aniline colors spoil in a very short time, especially when kept in simple aqueous solutions. In the September number of *Les Annales d'Oculistique*, stress is laid upon this point, and I have myself noticed that after the solutions have stood for a week, some chemical change seems to take place in them, and that may possibly explain the want of effect which a previous speaker noticed. To be effective they should be freshly made every three or four days.

In chronic and even in acute middle ear suppuration, I have seen pyoktanin work wonders. Alt, in the last number of the *American Journal of Ophthalmology*, gives it as his opinion that this remedy is of sigual value in chronic middle ear lesions.

In my opinion the proper pronunciation of the word is py-ok'-tanin, and not pyok-tan'-in, for the reason Dr. Hotz has given, viz.: that it has only one *n* and not two.

Dr. W. F. Coleman. Mr. President: I would like to ask one question. Dr. Stilling has said that one great advantage that he noticed, the iris colored blue. I have not noticed any of this absorption into the anterior chamber, and I would ask if Dr. Hotz has observed it?

Dr. J. E. Colburn: Mr. President, I have had a little experience with this drug in a recent case of ophthalmia, the case came to me a week ago Friday with signs of infection and a confessed gonorrhœa. I washed out the eye carefully and thoroughly applied a solution of pyoktanin and directed the patient to return to me on the following day, giving him saturated boracic acid solution to use for cleaning. The eye was so much better on the Saturay following that he did not call and I did not see him again until the following Monday. On Sunday night the eye grew rapidly worse and on Monday morning it was blossoming out in all its glory. It was about as violent a case as I have recently seen, and has so far withstood any treatment that has been given. It has had the very best of nursing and, so far as I have been able to give it, good care. I have been using the pyoktanin once in four hours, and while I depended upon that alone I saw no diminution in the quantity or quality of pus, but immediately upon using silver the pus grew less and the eye apparently improved.

I have used it in a few cases of simple corneal ulcer and the patients got along nicely and I have no reason to regret its use, but in one case of ulcer following a severe burn of the cornea the result was not as good.

The patient was only seen however, after the wound had existed five or six days and the anterior chamber more than one-half filled with pus. I used pyoktanin and on the following morning found the pus still forming in the ulcer. I then cauterized it with a 95 per cent solution of carbolic acid and drew out the contents of the anterior chamber. I saw no pus after that. I would say that I used the 95 per cent solution of carbolic acid with EXTREME CARE, binding a toothpick with a small pledget and winding it firm and hard to a pencil point, dipping the tip of the pencil into the carbolic acid and touching the cornea with it. I believe that it is better than the galvano or actual cautery, because it can be more carefully used, and it has given me good satisfaction.

With regard to a case of hypopyon now under observation where there was but a simple hypopyon—the ulcer quite small—I have, I think, been having very good success with it—as good as I have had with any other remedy.

Dr. F. C. Hotz in closing the discussion said: In answer to the question of the last speaker, I may say yes. When pyoktanin was instilled into the eye in every case there could shortly afterward be noticed a staining of the sediment in the anterior chamber, which was evidence that the coloring matter had penetrated the cornea.

I hardly have anything further to say in regard to the pronunciation. I suppose we won't quarrel about that, as in the English language words are spelled one way and pronounced another.

One object of my report I am sorry to say was not fulfilled. I have presented this paper simply as a report of my experience, not with the purpose of booming a remedy, or of expressing any unqualified endorsment, or encouraging any one to expect too much from it. I tried to be conscientious and impartial in writing down my report from notes which were carefully kept in every case in private and hospital practice, and I hope I succeeded. I avoided particularly touching upon treatment of other cases, because I considered the main point was to bring out its effect in suppurative processes, and I expected in bringing this report before the society to hear a little more from our surgical brethren. I was very much interested in the remarks of Dr. Harris. I hoped that others would follow him and say whether their experience agreed with mine.

Dr. O. L. Schmidt read a paper on *The "Funnel-shaped Breast of Ebstein" with Report of a Case.*

This appell was applied in 1883 by Ebstein to a peculiar deformity of the anterior thoracic wall, which consists of a depression of the medium region of the anterior wall of the thorax and the adjacent abdominal wall, the bottom of the depression being formed by the lower end of the sternum and apparently almost resting on the vertebral column. On account of its fancied assemblance to a funnel and also on account of the want of more accurate knowledge of its etiology, Ebstein described it under the title of "Trichter-brust"—funnel-shaped or funnel-form breast. He collected five cases which had been reported in the German and French literature as "rare deformities of the thorax," and from these and his own case he made a very careful study and came to some deductions which I have taken the liberty to use very freely in this paper.

Shortly after the appearance of his article, three or four more cases, one by himself, was described. Consequently the deformity is not as rare as at first supposed, but every case deserves description as its etiology and development are very obscure. Milder forms are frequently observed, but it is equally true that similar conditions are often mistaken for it.

Woillez estimates that only one-fifth of healthy men have well-formed symmetrical chests, and classifies the remaining four-fifths under the physiological heteromorphiæ of the thorax. A goodly proportion of the latter is made up of peculiarities of the sternum and bordering costal regions, which are not to be confounded with the subject under consideration.

To these abnormal shapes belong a depression of the lower end of the sternum produced by the pressure of instruments or by the trunk being bent forward excessively during certain occupations.

Rachitis produces many deformities of the sternum. These have been especially described by Khüller, who mentions more particularly the kyphoid sternum and the sternum having ordinary depressions in it, usually near the lower end and some as large as half a walnut. An abnormal projection of both anterior costal convexities forward of the plane of the sternum, forms a condition which assembles a depression of the sternum, but is not actually one, as the antero-posterior diameter of the thorax is not diminished. Then there is often a bulging of a few costal cartilages, due to rachitis, having the sternum slightly sunken between them. These are the most frequent deformities which have some resemblance to the funnel-shaped breast.

The sternum of a well-developed man in the upright posture has its anterior surface looking forward and slightly upward so that its lower end is anterior to its upper end. This forward slant of the bone with the normal dorsal kyphosis increases the median antero-posterior diameter of the thorax from 5 to 6 c. m. in the upper dorsal aperture, to 15 to 19 c. m. in the lower aperture. The normal length of the male sternum is 18 to 20 c. m. In the funnel-shaped breast the plane of the lower end is posterior to that of the upper end, so that the anterior surface of the sternum looks forward and slightly downward.

The funnel-shaped breast is much more frequently found in the male than the female. In the majority of cases it was present at birth or discovered at least in the first few years after birth, but unfortunately never came to medical observation until fully developed. In one case it began in the second year during an attack of cerebral meningitis; in another, in the seventh year synchronous with the appearance of epilepsy.

It is a rather singular fact that in none of the reported cases was there any thoracic disease and all the subjects came under observation for some irrelevant disorder, and the chest deformity was accidentally discovered. The main characteristics were a diminution in the antero-posterior diameters of the thorax so that the proportions between these and the transverse diameters were much increased; then a shortening of the length of the sternum, and complete abscence of any etiological factors.

A certain degree of osseous flexibility must of course have been present during its development, but not necessarily more than is a feature of bone-growth.

The influence of air-pressure and muscle-traction is allowed. But inflammatory influence is denied as in none of the cases could any traces of it be found.

The viscera were dislocated only in such directions and degrees as was to be expected. Only in the case of Græffner was there a history of trauma. The depth of the depression in this case was 6¾ c. m. beneath a line drawn from nipple to nipple. Syphilis and rachitis were excluded. But pressure in fœtal life has been accused as one of the etiological factors. Zuckerkandl refers to the pressure of the inferior maxilla on the sternum and Hagman to the pressure of the heels on the sternum in utero. It was found as a matter of observation that the length of the sternum in most cases was considerably diminished.

Since most of the cases were evidently congenital Ebstein came to the following deductions as to the possibilities of its causation.

1. A disease of the osseous structures.
2. A pathological development of the fœtus due (*a*) to gross mechanical influences in fœtal life, (*b*) to a morbid direction of the primitive germinal layers.
3. A combination of both of the above causes.

Ebstein inclines to the opinion that it is the result of a primitive developmental vagary through which the sternum is dwarfed in length and has the tendency to remain in a fœtal depressed condition, and that the future large depression appears secondarily as the thorax grows in all its proportions.

These are the main features and conclusions arrived at by Ebstein after a very exhaustive consideration of the subject.

We will now consider our case. History takes Sept. 1890. T. C., thirty years old, barkeeper, born in England of English parents, came to this country while a young child. His father was found dead, at middle age, of unknown cause. His mother died at the age of fifty years of "bloody flux."

There was only one brother who is living and healthy. No history of any diseases or deformities in his relatives is ascertainable. Had measles, chicken-pox and scarlet fever in his childhood. In 1876 had a severe attack of quinsy. Denies venereal infection of any kind. Was told that he was able to walk at nine months. At twelve years he was forced to work for his sustenance. He states that at that time he was almost of the same height as at present but that ten years ago he was at least 1½ inch taller. He recollects that he was always flat-chested, but knows that neither he nor his companions, who frequently saw his breast exposed, noticed anything peculiar on his chest. He always had very confining in-door

work, but no heavy labor and never paid any attention to physical development. Seven years ago a general weakness overtook him gradually so that he was frequently compelled to stop work for a few weeks at a time, whereupon, apparently strengthened, he resumed his work. A slight cough commenced soon after and became much worse soon and has persisted ever since, accompanied by frequent and profuse hemorrhage from the lungs. These hemorrhages have not recurred in the last three years.

From the beginning of his trouble to the present time he has had pains in his chest and back down to the sacrum. He states that these were very severe at times in the first four or five years of his sickness. One year after the commencement of the weakness, he first noticed what seemed to him a sinking in of the chest. This increased slowly at first, then more rapidly, and about one year ago reached its present status. During the course of his sickness he has lost over thirty pounds and gradually grown weaker, so that last winter he was forced to quit work entirely and seek refuge in a charitable institution, as he had spent a small fortune in trying different parts of the country on the advice of physicians who pronounced him consumptive. Aside of this weakness during exertion, he feels well. Appetite and sleep are good. He cannot sit straight in a chair on account of weakness in his right side which causes him to sink to this side. The recumbent posture is the most comfortable to him. The cough is violent in paroxysms, especially in the morning, when he usually expectorates one-half pint of sputum almost in one coughing spell.

Status præsens.—The patient is of a pale, anæmic color, small stature, very poor muscular and bony development; height, 168 c. m.; temperature, 98.4° F.; pulse 80 per minute and ordinary quality. The panniculus adiposus has not entirely disappeared. The muscles are very small and flabby. Nothing peculiar on his head or extremities is noticeable, but the anterior aspect of his chest presents a striking deformity in the form of a deep depression, whose bottom is formed by the ensiform cartilage, and seems at first glance as if it must be directly on the vertebral column. The depression is decidedly to the right of the median line, so that the right and left sides are not symmetrical. The anterior convexity of the right middle ribs is much narrower and more sharply prominent than the left. The resemblance of this depression to a funnel is of course imaginative, but as allowable as all such derivations of anatomical names.

The upper side of the depression is formed by the whole of the sternum, which is directed from the sterno-clavicular articulation downward and inward, so that the lower end of the corpus sterni, with the xiphoid appendix, are in the pit of the depression. The sternum is, furthermore, so tilted that its right border is more depressed than the left. Consequently the left side of the depression is formed by the left costal cartilages, the abdominal wall and slightly by the sternum itself. The right side is formed by the right costal cartilages and the abdominal wall, while the lower side is formed by the more abruptly ascending epigastrium with the liver beneath it. Thus the thoracic cavity is divided into halves, of which the right is the narrower. There is nothing noteworthy on the rear aspect of the thorax, excepting a modorsate dorsal scoliosis with the convexity to the left.

Palpation of the ribs and cartilages reveals only that the downward convexity of the cartilages, from the sternum to their insertion in the ribs, is much greater than in a healthy subject, and is much greater on the right side, where the sternal border is more deeply sunken, than on the left. Furthermore, the sternum seems to be more than commonly concave longitudinally on its anterior surface.

Objective examination of the viscera: Both pulmonary apices have normal resonance. There is a slight dullness infraclavicularly on both sides, but this is due to evident unimportant anatomical causes. The percussion sound in the other anterior and lateral regions is well marked pulmonary. The lower border of the right lung in the mamillary line is at the upper border of the eighth rib in the axillary line at the lower border of the ninth rib. In the rear on the right side there is semi-tympanitic resonance in the eleventh inter-space and one centimeter below the twelfth rib. The percussion note is normal in the other regions of the back over the right and left lungs. The breathing in both apices is vesicular, but toward the bases both phases of respiration are very audible and accompanied by loud mucous rales, especially on the right side. Over the tympanitic and in the rear over the lower right lung there is slight bronchial breathing, with loud rales; occasionally a metallic rale, with Gerhardt's change of resonance on change of position. The upper absolute cardiac dullness begins at the sixth rib in the mammillary line; the right border is at the left sternal border, and the left one and one-half centimeters to the left of the mammillary line. The apex-beat is not marked, but there is a moderate diffuse shock over the whole cardiac area. The heart-sounds are normal. The lower liver border is two centimeters over the umbilicus.

The breathing is almost excessively costal. Very little diaphragmatic action is apparent, even when forced. In forced inspiration there is an apparent sinking-in of the depression, while in coughing it is forced outward.

The sputum is purulent and nummular. It does not contain Koch's (tuberculous) bacilli. The urine contains a normal amount of phosphates. No albumin or sugar.

DIMENSIONS OF THORAX.

Circumference.	Anterior-Posterior Diameters.	Transverse Diameters.
Axillary.....81 c. m. Mammillary 72 c. m.	Right Nipple.14.5 c.m Left Nipple..16 c. m. Depression ..11 c. m.	Axillary.... 26 c. m. Mammillary 25 c. m.

Length of sternum, 16.5 c. m. Depth of depression from a line between mammillæ, 5.5 c. m. Distance from seventh dorsal spinous process to the center of depression along the right side, 36.5 c. m. Distance from seventh dorsal spinous process to the center of depression along the left side, 44.5 c. m. Distance between the mammillæ, 16 c. m.

To expedite a conception of the case, I take the liberty of making the following recapitulation: An intelligent young man 22 years old, of poor muscular and bony development, who had never been sick excepting with the ordinary sicknesses of childhood, begins to suffer with marked general weakness and pains in the chest, particularly in the back. After about one year a cough shows itself. This condition continues for two years, with gradual increase of the symptoms so that the patient is often compelled to abstain from

work entirely for some weeks until his strength is again recuperated. During this time his attention was first attracted to a gradual sinking-in of the lower end of his breast-bone. After six years the cough, the weakness and the pains, with a loss of thirty pounds in weight, have completely disabled him.

By this time the depression has reached a depth of 5½ c. m., is to the right of the mesial line and is accompanied by considerable irregularity of each lateral half of the thorax. There is a well-marked scoliosis with the thoracic convexity to the left. In the basis of both lungs there are inflammatory conditions of the bronchi, and in the posterior lower part of the right lung there are unmistakable signs of a large cavity. As no Koch's bacilli of tuberculosis are found in the sputum, the existence of a bronchiectasis with a large cavity in the right lung is established. As soon as he is put under favorable circumstances his health improves in strength and general appearance, but his weight increases by only a few pounds.

We now come to a consideration of the etiology of this unique case which presents so many features inherently different from those reported by Ebstein. It is necessary to consider firstly, that the depression existed unnoticed from birth and that the bronchiectasis was secondary to its influences (the etiology would then be the same as in Ebstein's cases); secondly, that intrathoracic inflammatory processes were the exciting cause of the depression; thirdly, that a disease affecting especially the bone structure was the primary process.

Truly various influences must have been co-efficients of each other, just as in the production of any deformity, rachitic or otherwise, incidental circumstances are often the determining agents in the special peculiarity such a malformation may assume. Besides the above stated conditions general exhaustion and muscle traction are not to be underrated.

The theory of a pre-existing depression can only be refuted by the patient's statement and there is no reason to doubt his veracity, as he is of very good intelligence and as there is no object why he should misrepresent his case.

There is no history of any inflammatory condition in the chest beyond bronchitis. There is absolutely no clue for the existence of a retracting pleuritis of mediastinitis. Moreover, retracting pleuritis is very common but no such results have ever been observed in its course. The theory of the bronchiectasis producing the depression is plausible but is opposed by the fact that the depression was observed while yet the cough was just beginning. Bronchiectasis is always a chronic disorder which requires years for its development and is due to a degenerative process in the bronchial walls or the neighboring pulmonary tissue, or to a disturbance of the atmospheric pressure relations in the lungs. A bronchitis was present but it alone could not have produced bronchial caverns in the given time and in a subject of his age, and consequently we have no right to believe that the bronchiectasis induced the depression. The bronchiectasis is explained by the influence of the unfavorable respiratory conditions, due to the depression on the bronchial walls, degenerated by a chronic bronchitis.

The earliest manifestations were excessive weakness, severe pains in the chest and the whole back down to the sacrum, and continuous loss of strength. The depression appeared in the first or second year of the disease. Gradually there developed a marked scoliosis (there is no anchylosis in the vertebral column of the patient) and the various deflections in the ribs and the slight concavity of the sternum. The diminution in height produced by the scoliosis, and the patient's age are significant. These are conditions that are not merely the results of general exhaustion for they would then be common occurrence in the course of wasting diseases, but they are the expressions of a constitutional malady which is characterized by excessive general exhaustion and by loss of resitance in the bony tissues. This is in my estimation osteomalacia. I think it very plausible that a deformity of the kind under consideration may result when in the course of osteomalacia, the bony and cartilagenous framework of the chest are singled out for the brunt of the disease and then subjected to severe strain from coughing and other predisposing influences. The motility of the lower end of the sternum (shown by its sinking in during forced inspiration and coming forward during coughing) seems to indicate that the fasciculus of the diaphragm attached to it effects its position and that therefore we may presume that this traction played an important part in the formation of the depression after the sternum had begun to incline inwardly.

The points of distinction of this case from those reported are: Firstly, the appearance of the deformity after puberty; secondly, the presence of complete debility from thoracic disease; thirdly, the depression is not in the median line but decidedly to to the right.

Dr. Archibald Church. Mr. President: A case has come under my observation in the past year in which the man presents a deep depression in this locality so that it seemed to me at the time I examined him that the anterior wall of the body must be nearly in contact with the spine. He has never had any lung trouble. His former occupation as a stone carver would not explain the condition. His boy, a child of five years, presents a similar deformity, which is probably congenital. The man has had no illness whatever; the reason I examined him was because of a severe attack of colic which led to my being called.

Dr. O. L. Schmidt. In closing the discussion said: No post-mortems have been made in any of the reported cases, and as I said in my paper, it was merely a matter of accident that they came under observation—it was always for some other disorder. As far as empyema producing this particular kind of disorder, I doubt it very much. I excluded it in my case by various examinations and methods not stated in the paper. Of course the other deformities of the chest that are due to inflammatory conditions are common and seen daily; and as far as Dr. Church's case is concerned, I think it would pay him to examine it more closely. There might possibly be such a deformity in this region. Those having a depression of an inch are not uncommon, but in all cases they can be excluded from this particular style of deformity. Only about six or seven weeks ago a man came under my observation with a depression of an inch and a quarter. This was due to the projection of the costal cartilages. Dr. Clark refers to the interesting factor of his case being complicated by epilepsy. Ebstein draws attention to that; in one of his cases the disorder was discovered at the same time with an attack

of cerebral meningitis, and in another case at the beginning of the epilepsy, and he hints at the connection between these two things. But as a post-mortem has not been made it is impossible to state the exact nature of this deformity.

Dr. J. E. Blaine read a paper on *Inebriety*. The study of Inebriety, scientifically, is yet in its infancy, and beyond the fact that it is a disease, a vast unoccupied field exists, ready for research and therapy. From the advances already made sufficient hope is given that practical care and *cure* of this disease is one of present possibility and future certainty.

It is properly within the domain of medicine, especially in the department of diseases of the mind and nervous system, and to the Alienist we look for the rescuing of the victim and the bringing about of a change of the opinion, that has been entertained by the public, since the days of demonism and witchcraft, when the Insane-Hysterical, Cataleptic and Epileptic were supposed to be possessed of devils and the feeble-minded old women were witches.

We are all familiar with the results of treatment of the Inebriate by non-professionals, expecting a cure by pledge signing, temperance societies, various forms of punishment, religious enthusiasm, etc. Nor has there been any better success achieved by thrusting them into jails, work-houses or Inebriate Homes for a few weeks or months, and then sending them out to encounter the temptations produced by their disease, *without special treatment* to neutralize or obliterate the effects of past habits. No poison, except Syphilis, plays so extensive a role in the morbid affections and degeneration of the tissues, nervous or non-nervous as does alcohol. The problem we have to deal with is that here we have a man, normal in all respects, except that he has no absolute, permanent control over the desire for alcohol. In the periodical drinker weeks and months may pass without an outbreak of the disease, when suddenly, either by disturbance of his mental equilibrium, the accumulated force of heredity, or a nervous, explosive, indefinable something, like an epileptic explosion, an outbreak occurs and our man goes on a debauch.

In the habitual drinker the conditions are somewhat different; on his part there is not that striving to avoid liquor, no self-acknowledment of his inability to stop, no realization of harm being done by it, the continuous presence of alcohol in the system seems necessary to his physical comfort and the effects of the alcohol on him is a reflex one on the nervous system. Alcohol has the distinct property of coagulating living animal protoplasm, applied to a raw surface produces pain and rapidly coagulates the albuminous fluids covering the part. Injected in a sufficiently concentrated state into a vein it coagulates the blood, taken into the stomach undiluted or nearly so produces inflammation. In large, concentrated quantities is an irritant poison, producing deleriant, anæsthetic and asphyxic effects.

Absolute alcohol is dangerous in almost any dose, by reason of its powerful affinity for water, which it abstracts at once from the tissues to their detriment and destruction. In small quantities, largely diluted, it produces only an agreeable sensation of warmth and stimulates the secretion of digestive fluids. It is absorbed with great rapidity by the veins of the stomach and intestines, enters the blood *unchanged*, and soon reaches every nerve, muscle and gland. After its entrance into the blood, a certain amount is oxydized; the amount must be large, for, while it is a fact that alcohol can be recovered from the various emunctories of any animal to which it has been administered, yet no one has been able to account for anything like the amount given. Having the alcohol *unchanged* in the blood, it exercises the same effect on the tissues inside as it does outside the body; the tissues with which it is first brought in contact exist in the walls of the blood-vessels themselves, and in them the direct irritating effect of the alcohol is first seen, consequently the most notable effects are found in the smallest arteries and capillaries. Mingling in the current of the blood, it comes in contact with the vascular muscles, first contracting the muscular coats, diminishing the diameter of the vessels, accelerating the heart's action, raising the arterial pressure, paralyzing and anæsthetizing the minute sensory nerves, fibers, cells and molecules, coagulating the albumen and albuminous fluids, presenting increased heat and functional activity with vascular pressure in the brain, and by saturating the blood corpuscles and liquor sanguinis, the alcohol directly impedes the blood changes by which oxygen quickens nutrition, thereby preventing their oxygenation or taking up the oxygen received in the lungs, diminishing the exhalation of carbonic acid by the lungs, as well as the excretion of urea and the fixed salts through the urine. Now, alcohol being composed mostly of carbon and hydrogen, is, in moderate quantities, compatable with the elements of living protoplasm, but taken in *excess* of what the tissues can assimilate and preserve their normal equilibrium, this *excess* mechanically obstructs the *access* of oxygen to the living protoplasm and may arrest the vital processes entirely. Further, this *excess* of alcohol tends to accumulate in the nervous tissue through the peculiar selective capacity of the nerve centers for this poison, it thereupon expands its primary and most potent influence. Three times as much alcohol has been obtained from the nervous tissue of drunkards as from the blood. The brain being so exceedingly vascular and so richly endowed with cellular elements which are penetrated by every *excess* of alcohol, it becomes appreciably filled with it. The pathological changes, as seen in the examinations at the West Riding Asylum in the alcoholic insane, are but the termination of the changes begun at the first ingestion of alcohol in excess. A few of these changes, as noted by Lewis, 1890, are first in the vessel walls which lead to extensive atheromatous and fatty degeneration of the tunica intima, associated with which is found parallel changes undergone by the adventitial sheath in the increase and fatty degeneration of its elements. Fat emboli are frequently established in the smaller cortical vessels during the progress of these changes, and the extensive dilatation and aneurismal states are probably direct results of the diminished resistance of the vessel and paralysis of its muscular coat.

An extensive *endarteritis* affects the ultimate radicals of the cortex, and with the pre-existing change in the composition of the blood leads to the devitalization of the nerve tissues. The subsequent change in the interstitial tissue around, and the nerve elements themselves apparently depends much upon the subject's predisposition, which seems to be the chief determining factor in engendering the fatty or sclerotic

change which characterizes the two classes of alcoholic subjects. However, in all we find a like tendency to a degradation of tissue in the replacement of the normal elements by new connective growth; in some is found a special tendency to extensive fatty change in the nervous tissues, so that the parallel degeneration seen elsewhere, as in the fatty or sclerosed liver, seems to be reproduced here. It is probable that the fatty change is altogether a *more* acute process, and the sclerosis the result of a *much slower* and more *gradual poisoning* of the tissues.

The fatty change is more liable to be induced in senile acholics. These changes are undoubtedly indicative of a *very chronic inflammatory action* proceeding in the vessels of the membranes and slowly involving the upper cortical strata. Coincident with this a similar change is found throughout the nutrient supply of the medullated substance of the convolution, which leads to important changes in the lowermost series of nerve cells—the spindle layer and medullated nerve fibers themselves at this site. In the outermost cortical layer is seen the apical distribution of the large, deep-seated cells which it is supposed possess motor endowments; their poles are in an early stage affected by the sclerotic changes proceeding in outer layer of the cortex; these cells are affected by the degenerative change ere the morbid process extends deeply. Simultaneously with this, an invasion of the cortical elements takes place from the medulla of the gyri, this morbid process extending upward involves both spindle and motor elements. The deepest cortical layers are more especially affected—cases being met with where the uppermost layers show no morbid indications. The vascular, nervous and connective elements all participate in the change, tunics crowded with nuclear proliferation. The nervous and connective elements at the site of the large, so-called *motor* cells, constituting the clustered groups of the central gyri show a notable degeneration. These great nerve elements are swollen and rounded, and in place of their usual delicate protoplasm, present a rough granular aspect. Down in the lowest layers, the spindle cell formation, is found a large development of scavenger cells scattered profusely upon the blood vessels. The *spindle cells themselves are covered by heaps of nuclear proliferations* and the appearance presented is that they are undergoing rapid degeneration, and removal by the scavenger corpuscles, which act as phagocytes and devour nerve elements. When the ingestion of alcohol has been stopped and the quantities taken have not been large or long continued, the system can in many cases eliminate all that is in the body, and through the regular reconstructive agencies of the system, the brain and nervous system can regain their normal state.

But in the vast majority of cases the brain cells, fatigued by their own excessive action, invariably out of all proportion to the strength of the body, excite an intense craving for restorative agents; recuperation through rest and food is a slow process and too irksome to the individual with nerves all unstrung and who has neglected, wholly or in part, nourishing food and rest. He finds in the repetition of alcohol something which has a special affinity for these tired nerve cells, it producing a rapid and pleasurable relief, enabling him to continue his bodily activity without the rest and food really required. Accompaning the above is the well-known anæsthetic property of alcohol, benumbing the moral and intellectual faculties; with weakened will and low resisting power the disease becomes chronic. Now a permanent dilatation of the vessels take place; cells, molecules, capillaries, lymphatics and all nervous tissue becomes indurated and changed, thus changing molecular combinations in the higher nerve centers where the character of brain action is determined, the same field where pathological action takes place in the vast majority of nervous diseases that affect the character and mental status of the man. Alcohol is so distinctly poisonous to the nerve centers and cells that once its peculiar influence—like opium and other narcotics—is made on these structures, the desires and cravings for it become permanent, overruling all other considerations.

Desires for alcohol, like other normal desires, primarily are but the indication of the needs of the system. In a healthy man all his desires and cravings can, as a rule, be gratified in some proper way at some proper time, so as to promote the good of the body and mind, none requiring absolute prohibition. The proper way and time to gratify them is determined by the controlling influence of reason, experience and law. A craving which leads to harm is a *diseased craving*. The strongest and most subtle desires of man arise in the highest centers of the cerebral cortex, *i. e.*, the emotional centers, and are not necessarily connected with any functional activity of the lower nervous centers, as the sympathetic or visceral ganglia. The impulses which guide and regulate these desires must also proceed from the highest cerebral regions. They are not purely of a spiritual nature, but are associated directly with the physical changes in the brain tissue. For the manifestation of hurtful desires there must be present a diseased craving and also a paralysis of control. The peculiar work that a nerve cell must do, requires that it should not be sluggish or stable, but sensitive and unstable. In certain individuals this sensitiveness and instability are carried to excess and the cell acts in an explosive manner. In a motor cell this abnormal condition gives rise to convulsions and exaggerated reflexes; in an emotional cell it causes explosions of passion and diseased cravings. A tendency to this emotional condition is obtained by heredity from ancestors whose brains have been subjected to undue excitement or have ben poisoned by alcohol, opium or syphilis.

Control over the emotions and over the conduct is the highest function of the human brain. The power to do right and refrain from wrong is earliest seen in good stock but is slow of development or may never become strong in the children of habitual criminals, drunkards or insane. This power of inhibition or control is, even in the best stock, destroyed by alcoholic poisoning, and diseased cravings with paralyzed control occur together, the one involving the other. Again, every-day experience shows that personal predisposition plays an important part in the *Genesis* of central nervous diseases—it is not actual disease but a liability to disease—a lack of resisting power, in consequence of which certain influences, unable in a normal individual to produce any abiding disease, are capable of setting up disorders of function and often alterations of structure. This predisposition is of special importance in connection with inebriety, which not infrequently results from involuntary causes—such as can truly be called an inebriate diathesis. Under these conditions he is not a voluntary sufferer.

Volition is excluded and his inebriety is but the active manifestation of a certain diseased condition which lies at the root of, and *is* the cause of his inebriety.

In regard now to the specific action of alcohol, it exists in the blood in an unchanged state; a certain amount serves as nutrition to the vessels taking it up. The remainder or excess serves only to retard the various vital forces which, in proportion to the quantity taken actually produces paralysis of sensation and motion. In their normal condition the vital phenomena of living protoplasm are dependent upon the permanence of a certain equilibrium in which all its constituent molecules take part. Disturbance of this equilibrium produces a lower degree of complexity in the movements of the molecular combinations, thus producing a lower grade of vital manifestations. This equilibrium may be disturbed by the introduction of matters within or without the body, and every such introduction means a readjustment of this equilibrium if their living identity is to be maintained, the disturbance produced by the introduction of alcohol into the circulation involves the functions of sensation, reflex action, voluntary motion, respiration, circulation and distribution of heat. These disturbances are due to the paralyzing energy of alcohol in contact with living protoplasms.

The action is peculiar and characteristic. First the impressions of sense are disturbed, the intelligent connection between the different cerebral centers is divorced, so that the intimate connection between the will and brain action so changed that a point is arrived at where the will can no longer control the material forces of the brain, in that all power of directing the functions of the brain and body through the medium of the brain is arrested. The individual feels as though he were of a dual nature, one part quiet, dignified, of lofty aims and ideas, apologizing for the acts of the other part, seemingly thus to vindicate the high character of his inner consciousness in contrast to the wild, boisterous and uncontrollable conduct of the other part that is giving way to desires and passions. Physiologically this is due to the inharmonious and disproportionate activity in different portions of the brain. Psychologically it is the result of a change of the relation between the material substance of the brain and that immaterial personality which constitutes the conscious, intelligent individual. Therefore in *consonance* with these anatomical changes and phenomena of alcohol we have produced the inebriate, no longer a free agent, his moral, religious, business, in fact all perceptions, aims, ambitions, and pleasures lowered and degraded.

My investigation and experience lead to the recommendation of sufficient control to insure regularity and continuity of treatment, in which the eleminatives, alteratives and reconstructive nerve agents hold out the promise of cure of this almost universal disease.

Bibliography—Lyman, Zeigler, Lewis, Stillé, Bartholow, Keeley and various journals.

Dr. Archibald Church: Mr. President, I will just say a few words. I do not desire to take the extreme ground of the gentleman who has opened the discussion, nor of the essayist. It is well sometimes to take a middle ground. A great deal of difficulty in the discussion of this subject arises from the plurality of names appended to the condition which throws a haze over the situation. We have heard something of inebriety; formerly we heard something of drunkenness; we hear of alcoholism, and there is delirium tremens and mania a potu and alcoholic insanity, and dipsomania and methomania. Now for each of these several condition the various reporters will give a more or less indefinite description and there is a great deal of overlapping, so that it is very difficult to get a clear idea of the specific significance to be attached to the various term; I do not know exactly what the doctor would imply by the term inebriety, after hearing his paper. I must insist, however, that the continued use of alcohol in large quantities will produce physical disorder, will produce anatomical disorder in the nervous system, and where there is disorder in the nervous system it is natural to find disorder in the functions of that system—any disorder from the merest tremor to the wildest delirium, or deep coma. On the other hand there are individuals who take large quantities of liquor and never present any symtoms. Some of our octogenarians have drank liquor freely for 60 or 70 years and claim that it does them good. The ability to withstand poisons is something that depends upon the personal equation. Inebriety is not always a disease, but inebriety is sometimes a disease and sometimes the manifestation of hereditary defect.

In regard to heredity, we must remember that it is necessary when we find a man who is an inebriate to examine his father; we must know something of his grand-parents and great grand-parents, and we must remember the tendency to skip a generation; we must remember that some may not be brought up in a way that gives them a physical tendency to alcohol through deprivations, exposure or concomitant illness and which a succeeding generation may have to undergo. I like Dr. Earle's treatment, however; when he shuts a man up for a year he places him in rather good circumstances, as far as the treatment of alcoholism is concerned. It is not medical treatment exactly, but very much better. It deprives him of his poison, which is the use of the most potent remedy, and at the same time impresses upon the individual a certain amount of self-reliance and shows him that it is intended he shall exercise that reliance. I am of the opinion that in a very small percentage of cases, certain drugs are of value; I also believe the surroundings should be of a desirable sort, and that the moral and religious influences, and anything which will give the man self-control, is of value. Each case is to be considered by itself and sweeping generalities avoided.

Dr. Sanger Brown. Mr. President: In my opinion the tendency to drunkenness is often hereditary.

Fondness for the bodily and mental excitement of intoxication, natural sociability and complacence, a tendency to neuresthenia, which is relieved by stimulants and finally deficient inhibitory power in general are all important elements in the formation of the habit of drunkenness and one or more of them will be found to exist more or less prominently in many cases.

It will be generally conceded that these characteristics are frequently hereditary and it is only in this sense that heredity can properly be applied to the condition.

To demonstrate ever so clearly that alcohol causes disease of the tissues affords no proof that drunkenness is a disease.

the weak nervous tissue and deficient ce which favor the formation of this habit e strengthened to the utmost by keeping the ual in the highest possible condition of general th, it would not be in conformity with the highest arms of either morality or medicine to regard drunkenness as anything but a vice, for which, with hardly any exceptions every one so addicted must be held strictly accountable.

Dr. H. N. Moyer. Mr. President: I do not accept for a moment the position taken by Dr. Earle. In my judgment alcoholism simply marks a degeneration in the nervous structure and functions of the individual affected with it, and in that sense it is a disease, the same as criminality evidences a defect in nervous structure, which I firmly believe brings it within the category of the degenerations. I believe that the criminal and the inebriate mark but teratological defects and belong to the same degenerative type as paranoia and idiocy.

These degenerate beings react upon the social order and the environment reacts upon them, when the aberration reaches a certain degree they are no longer fit to be at large.

All this simply means that in the upbuilding of the society there has come an evolution in the structure and functions of the nervous system—indeed, the former is but the expression of the latter. It is apparent that occasionally individuals will present themselves who have not reached the average plane, for a time they may sustain themselves, but ever on the "ragged edge." They eventually slip into the abyss of crime, vice, pauperism or lunacy. The last two of these society considers a misfortune, while in reality they are quite as often expressions of crime and vice, as alcoholism or thieving.

Regarding the question of heredity, I wish to say that no diseased condition is directly hereditary. One does not inherit consumption, epilepsy or alcoholism but the structural defects that favors the development of these conditions. So in those unfortunates who inherit primary nervous defects, it is often accident or social surroundings that determine the direction of its expression. The defect in a person of high social position that produces an inebriate may in a lower social order produce a criminal.

Regarding the treatment of these conditions, I think Dr. Earle's position is unassailable. It really makes little difference whether we put these unfortunates away in sorrow or in anger—whether we say to them "you are a diseased person and must go to an asylum for treatment," or, "you are wicked and must go to a goal." In either event the chief curative indication that is detention is met. Eventually a philosophical jurisprudence will deal with criminals in this way, place them in detention until they recover moral health—if chronic and incurable, keep them until they die.

Dr. W. E. Clarke. Mr. President: I am strongly inclined to indorse almost every word Dr. Earle has said in relation to this subject. If it were true that inebriety is a disease produced by heredity or environment over which the subject has no control, it would seem to release him from all moral responsibility for anything he might do while intoxicated. With evil in his heart he has only to load his revolver with powder and ball and himself with alcohol to commit depredations on society, or even murder with impunity.

My observation is, that the moral influence that comes through faith in a Divine Power has done more in the reformation of drunkards than all other causes. Let a man with any tendency to the excessive use of alcohol feel that he is responsible for every drop of liquor he puts in his mouth, and that for every wrong act he does while under its influence he will receive punishment in this world or in the next, and there is some hope that he will be reclaimed. I have known no such results simply from medical treatment.

Dr. W. E. Clarke: Mr. President: Some years since I was called to a distant city to see a young man suffering from epilepsy. His digestion seemed to be good, he seemed to be physically sound in every particular and well developed except a depression in the lower part of the sternum. He never had received any injury, and had never performed any manual labor of any kind. His mother has a similar, but much greater depression, and it occurred to my mind that the deformity in the son might have been congenital. His brother also has epilepsy, but without any such deformity, hence I concluded that the latter had nothing to do with the causation of the disease. To-day I am informed by a letter that some surgeon advises an operation about the chest, I presume to remove the deformity with a view of its supposed influence on the epilepsy. My advice in the premises is, to wait until there is more experience as to the result of such a procedure.

Dr. J. E. Blaine, in closing the discussion, said: Mr. President: I have little to say; of course my views were brought out in the paper. I believe, so far as heredity is concerned, that as I stated, it is not a hereditary liking for alcohol, but there is that in the nervous organization of the persons and their ancestors who have been addicted to alcohol, or morphine, etc., which will impress itself upon the nervous system and render their children more liable after indulgence in and of the narcotics, to development of the desire until it becomes a disease. If alcohol is innocent, as Dr. Earle would have us believe, my paper is wrong, but if excess of alcohol in the system produces that change in the system which the best pathologists and microscopists allege it does, then it is only reasonable to look for a permanent effect, or at least a change in those tissues on which the poison acts more particularly.

I knew this paper had to combat with views that have been held for many years—that the alcoholic is a distinctly responsible individual, even after he has been drinking for twenty years. I do not see how he can be made any more responsible, how the holding out of a future punishment will have any influence upon the nervous system that is impressed with alcohol. It is the fact, after knowing so many cases in which treatment by moral suasion and forced abstinence had been tried, and where the failures have outnumbered the successes two to one, and observing that medicinal treatment *cured* a vast majority, led me to know that the medicinal treatment tending to eliminate the alcohol and rejuvenate those damaged structures, did bring about a greater success than any other treatment.

Southern Surgical and Gynecological Association

Third Annual Meeting, held in Atlanta, Georgia, November 11, 12 and 13, Chicago.

FIRST DAY—AFTERNOON SESSION (CONTINUED).

Fecal impaction has been mentioned by surgical writers as a cause of inflammation about the head of the colon. Pain over the cæcum, with a fecal mass perceptible on pressure often occurs, but rarely, if ever, associated with peritonitis. A few weeks since Dr. McMurty saw a case in conjunction with Dr. H.H. Grant, of Louisville, in which a localized peritonitis existed, in the right iliac fossa, with a well defined firm tumor.

Abdominal section was done, and instead of appendicitis, they found the disease to be cancer of the caput coli. Irrigation and drainage rescued the patient from the immediate danger begotten by active peritonitis. The patient was a woman of middle age, and the engrafted peritonitis presented the symptoms of an acute condition. Malignant disease of the cæcum has not, so far as the writer is aware, been mentioned by writers upon this subject as a probable condition in the diagnosis of deep-seated inflammation of the right iliac fossa.

The decision to operate should be determined more by the grade of the inflammation than by the time it has existed. When a diagnosis has been made, and three days have elapsed without subsidence of pulse and temperature, operation should be done.

Dr. McMurty submitted the following conclusions:

1. Inflammation about the caput-coli is, as a rule, inflammation of the appendix.
2. A certain proportion of cases will recover spontaneously by resolution. With these recurrence of the disease is common.
3. In the larger proportion the disease will endanger life, and may at any moment assume a condition practically hopeless.
4. Early operative interference involves less danger than delay, and should be resorted to in all cases in which a high grade of inflammation is persistent.
5. The essentials of the operative technique are brief anæsthesia, quick and thorough work, removal of the appendix, irrigation, and drainage. The lateral incision is preferable to the median.

FIRST DAY—EVENING SESSION.

President Englemann delivered an address entitled: "The Causes of Ill Health in American Girls, and the Importance of Female Hygiene."

He showed that the health of the American girl is threatened and impaired by causes more or less avoidable, as they are due to our methods of life, our methods of training and education; that the physique of this girl, most favorably situated amid auspicious possibilities, is imperfect; her brain overworked, her nerve power exhausted, her function impaired, and reproduction endangered, all by reason of the susceptibility of her peculiar organization, and the increased impressionability of the sensitive system during the years of development, in which it is subjected to the most severe strain.

The remedy is attention to woman's peculiar organization and the cyclical waves of her dominant function; or, in other words, harmonious development and occupation of nerve and muscle; diminished brain work and nerve stimulation with increased and co-ordinate physical exercise; increased protection and diminished compression of dress; self-knowledge and individual care during periods of heightened susceptibility. Changes are necessary in custom and fashion, in methods of labor and education. A harmonious coeducation of mind and body should be approximated, with coincident maintenance of proper hygienic conditions.

Dr. Englemann closed with a plea for the self-care of the American girl and her proper physiological instruction by the mother, which alone will mitigate or remove the initial cause of many of her ailments. Upon the mother he would impress that the perfect development of the female function, and the maintenance of this function, once developed, in a healthy condition, is essential to the perfect development of the girl and the perfect health of the woman; that self-care, a well regulated female hygiene, is the foundation of her well-being.

SECOND DAY—MORNING SESSION.

Dr. C. A. L. Reed, of Cincinnati, Ohio, read a paper entitled, "Indications for Operation in Ectopic Gestation." (See synopsis of paper on page 560.)

Dr. Bedford Brown, of Alexandria, Virginia, followed with a paper entitled: "The Local and General Treatment of Gangrenous Wounds and Diseases."

Many years ago previous to the late war, Dr. Brown determined to institute a series of experiments to ascertain the capability of local and general treatment of all gangrenous wounds and diseases that came under his care either for their prevention or arrest. The object was to find local agents possessing active properties as stimulants of vital action in the affected parts, also as a means of disinfecting and deodorizing gangrenous sloughs, hastening their final separation and for the establishment of a healthy basis for granulation. In cases coming under his care he found that the old deodorizer failed to accomplish these objects. He then employed a solution (almost saturated) of sulphate of zinc and dilute sulphuric acid, as a local application, which seemed to meet all the requirements. The first case in which it was applied was according to the following formula:

℞. Zinci sulphatis, ... ℥j.
Aqua ..... Oj.
Acidi sulph. dil. ..... ℥ss.

After the free application of hot water at 110 degrees the solution was applied every three hours on bats of raw cotton. In the course of two days the sloughs separated rapidly, leaving a perfectly clean, healthy basis for granulation This solution evidently possesses active antiseptic properties. It is an admirable deodorizer; it is clean and cleanses the parts effectually. In cases of great loss of sensation in the parts, weak circulation, reduction of vital action, and depressed vitality, he knows of no agents better calculated to arouse nervous action and stagnant circulation, for as soon as the living basement is exposed it gives rise to intolerable pain. He has used this solution in all forms of gangrenous wounds and diseases, some limited, others extensive and associated with septæmia with benefit.

Dr. Brown cited the history of several cases of different varities of gangrenous wounds and diseases treated by various methods.

Dr. Henry F. Campbell, of Augusta, Georgia, read a paper on Vesico-Vaginal Fistulæ.

[TO BE CONTINUED.]

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.
G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

Some Peculiarities in Ethics.

There is a certain ultra-ethical medical college in the city of Chicago—which we will designate "Trinity College," it being run in the interests of the fathers, the sons, and we presume, the rest of it—that has always made loud boasts of its ultra-ethical character and its endeavors to reform, purify and advance modern medicine. Many of us have long believed that some of its faculty honored ethics more in the breach than in the observance, the more especially as they were always among the first to cry "wolf" at an erring brother. We did believe, however, that their frailties would be more thoroughly concealed than appears at present writing.

An illustrated journal called *America* presents in its Christmas number the pictures and histories of many prominent citizens—published of course without their knowledge; journals are full of such tricks. Among others appears the picture of one of the fathers, numerous allusions to the sons, and a touching tribute to the rest of it as embodied in the philanthropy of the aforesaid father. We present the text verbatim:

"Dr. —— was the presiding officer of the International Medical Congress held at Washington in 1887. In 1859 he assisted in organizing the —— Medical College and Medical Department of the —— University, he was one of the founders of the Chicago *Medical Examiner*, subsequently merged into the *Journal and Examiner*, of the —— University, of the Chicago Academy of Sciences, the Chicago Historical Society, the Illinois State Microscopical Society, the Union College of Law in which he is professor of medical jurisprudence, and of the Washingtonian Home for the reformation of inebriates. From this brief and inadequate sketch, which does not touch upon his remarkable career as the busiest practitioner in the city, it may be judged that Chicago has in Dr. —— a worthy representative of its activity and indomitable industry. [P. S.—Dr. —— has never advanced his scale of fees to correspond with his increased skill and experience, something almost unparalleled in the profession."]

Yes, the conduct so tersely described in the above P. S. is indeed something unparalleled in the medical profession. It has rested on the profession of Chicago like an incubus; it has clung to our necks like Sindbad the Sailors' old man of the sea; it has acted moreover as a shining example to the younger men whom the possessor of this unparalleled quality has been teaching ethics. And yet this gentleman would doubtless be first to criticise an erring or indiscreet brother. To show how potent the ethical spirit of the gentleman alluded to has been in influencing the younger master minds with whom he is associated we have but to allude to a recently published interview in the *Chicago Tribune*. A talented and gentlemanly member of the profession—and we mean this in all sincerity—was interviewed on the ponderous and philosophical problem of when, how and where to wear an overcoat. After a lengthy and erudite dissertation upon the subject, the gentleman ingenuously remaked: "But of course I am a specialist. My specialty is diseases of the nose, throat and lungs." We are far from carping in criticism, but this from a representative of all that is prim and ethical is, to use the language of Truthful James, "Coming it Strong."

ABSTRACTS.

Trephining of the Skull Forty-Three Years After Injury.

(JOHN M. CURRIER, M. D., *Medical and Surgical Reporter.*)

W. G. B., 67 years old. While slaughtering hogs forty-three years ago, fell backward accidentally, striking his head violently against the corner of a post. He was taken home and remained in a partially comatose condition alternating with delirium, for several days. There was heat and swelling about the occipital region, but the physician concluded that there was no fracture of the skull. For over a year delirium, loss of memory, with severe headache, were prominent symptoms. These gradually wore away, but for the past forty-two years the man had occasional spells of despondency, with occasional severe headache and loss of memory; could not sleep at night also.

On December, 1889, Dr. Currier was called in to see the case. Found the man complaining of intense headache, could not collect his thoughts; while his food distressed him. Pulse was forty per minute, full and strong. Extremities somewhat emaciated and cool, but head was hot. Wife stated that he would often talk queerly, and was irritable. Was put on a mild, nutritious diet, with alterative doses of protoiodide of mercury, and recommended quiet. The symptoms became more aggravated and he attempted suicide, but was prevented, but not until he had severed the left external jugular vein. Lost thirty ounces blood but soon recovered. His health improved for a while after this, and he acknowledged making several previous attempts at suicide.

On February 15, the symptoms became alarming, and it required several attendants to restrain him. He refused food and medicine and became extremely emaciated. Consultation was resorted to and trephining was suggested for the depression of the old scar was very distinct.

February 27 the patient was etherized, the scalp laid open, and a button of bone one inch in diameter including the greatest depression in the skull removed. The corresponding part of the under surface was very strongly attached to the dura mater, and the depressed portion had been absorbed away in a great measure. From this time on the patient became more quiet, the symptoms were relieved. The wound healed quickly, and on April 25, the patient had gained flesh; appetite was good, and slept soundly without anodynes. Two months later patient was able to work; headache had ceased and was gaining in every respect.

A malignant cancerous growth has been removed from the breast of Mrs. J. Hill, of Bartholomew Co., Ind., and she may survive the operation. A nephew recently underwent a similar operation and died. His brother was also operated upon, and still another member of the same family is afflicted in the same way.

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ORIGINAL ARTICLES.

Report of Cases.*

BY W. S. HARVEY, M. D., Salina, Kas.

Mr. President and Gentlemen: On the programme for this meeting my name appears in connection with "Report of a Few Cases of Complete Laceration of the Perineum." Now before reading my report I wish here to say that a few days since, when asked by our worthy secretary, Dr. F. B. Browne, to supply a deficiency in the programme, I, without stopping to reflect, answered him as above. But later it occurred to me that the following five cases would likely be more interesting and certainly less monotonous than the ones first in mind.

Case 1.—Wm. S., N. Ninth street, Salina, Kansas, age 38. Three years previously had been struck in the right side by a scraper handle. The wound was about the sixth and seventh ribs, on a line with the anterior axillary fold, resulting in a sub-costal abscess. He had been treated by physicians in Los Angeles, Cal., and in Salina, Kas., for what was taken for an hepatic abscess.

Dr. Winterbotham first saw this patient on February 19th, 1887, who was at this time suffering from pneumonia, and the doctor's attention was then attracted to the abscess as the probable cause or source of the pneumonia, and upon closer examination found a tumor, hemispherical in shape, of condensed tissue, from which through two small openings sanious discharges issued. Tracing these with the probe led down to dead bone, the probe passing beyond the ribs into an abscess. Patient was placed on a stimulating treatment for the pneumonia, and was directed to have abscess daily irrigated with a weak solution (1 to 5,000) of hydrarg. bichloride, to prevent further septic infection. Patient subsequently recovered from the pneumonia, but remained in a weak and emaciated condition, the sinuses continuing to discharge nearly as before.

On March 5th preparations for an operation were made. Operation by Dr. Winterbotham on March 7th, 1888, assisted by the writer and F. M. Snee, D. D. S., the latter administering the anæsthetic.

Owing to the greatly hypertrophied and indurated (from long continued inflammation) condition of the tissues external to the ribs, a T-shaped incision was found necessary in order to expose the damaged ribs, which injury had caused necrosis to only a limited extent, but yet sufficient to destroy life, or render one a burden to himself and family, if left without proper remedy.

An exsection of the two ribs (think the sixth and seventh) was then made, thus removing the dead bone and permitting the necessary treatment of abscess by complete evacuation, irrigation and drainage.

An antiseptic dressing was applied and a rigid aseptic condition maintained until entire recovery took place, which has been permanent.

Case 2.—Mrs L., South Fourth street, Salina, Kansas, age 32. Was first seen by Dr. Winterbotham at office, on July 9th, 1890, presenting all the physical signs of enteric or typhoid fever. Temperature 103½°, headache, vomiting, diarrhœa and tympanitic distention of the abdomen, varying a little from day to day, but continuing, in the main, the same for about two weeks, when what seemed to be a metritis was set up.

On August 10, all the above symptoms began to abate, as had been predicted, and by August 16 was able to sit up. The appetite fully restored, but the tumor continued gradually to increase in size. Careful palpation failed to detect fluctuation, but rather gave the impression of fibroid growth.

About October 8, 1890, fluctuation was detected by the doctor, who then informed the patient (and her husband) that an abscess had formed in the right ovarian region, and that an operation was necessary for her relief and recovery. But at this time, on account of her having failed to menstruate for four and a half months, her friends suggested that she was pregnant, and consequently her consent to an operation was withheld. The doctor then advising her that the end of the fifth month would convince her as to the absence of pregnancy.

About December 1, severe symptoms (chills, sweats, peculiar odor of breath, etc.) of pyæmia developed, and on the third, consent for an operation was given, for which immediate preparation was made as follows: Free catharsis (or at least complete evacuation of bowels) by use of potass. bitart. and magnesia sulph. Thorough bath, vaginal injections of hot solution of the bichloride, 1 to 2000. Envelopment of abdomen in a sheet wrung out of a 1 per cent solution of acid carbolic on evening before the operation.

On December 4, operation was performed by Dr. Winterbotham, assisted by Dr. Berquist, of Lindsburg, Kan., the writer and Dr. England, of Salina. Central incision from umbilicus to symphysis, revealing abscess in right ovarian region, with much induration of surrounding tissues and extensive adhesion to neighboring visceræ. It was now found that the point of fluctuation was so near the *posterior part* * of the tumor; that its attachment by suture to any part of the opening in abdomen was almost or quite impossible. Thus confronted it was thought best not to open abscess and attempt drainage through abdominal wound, but by means of the aspirator entered (via vaginæ) one and one-half inches to right of cervix (womb being pressed to left side by products of inflammation) and pointed in direction of fluctuating point as located through abdominal opening, and penetrating fully two and a half inches, the pus was reached. Now alongside of the aspirator needle was carefully thrust a small two-inch catling, thus making room for the drainage tube, which was at once introduced and the aspirator then withdrawn.

Abdominal wound immediately closed by deep and superficial sutures, strengthened only by adhesive plaster and a neatly fitted bandage over the antiseptic dressing, which was not removed for five days. Wound healed almost entirely by primary union. Abscess

* Read before the Golden Belt District Med. Society on Jan. 8th, 1890.

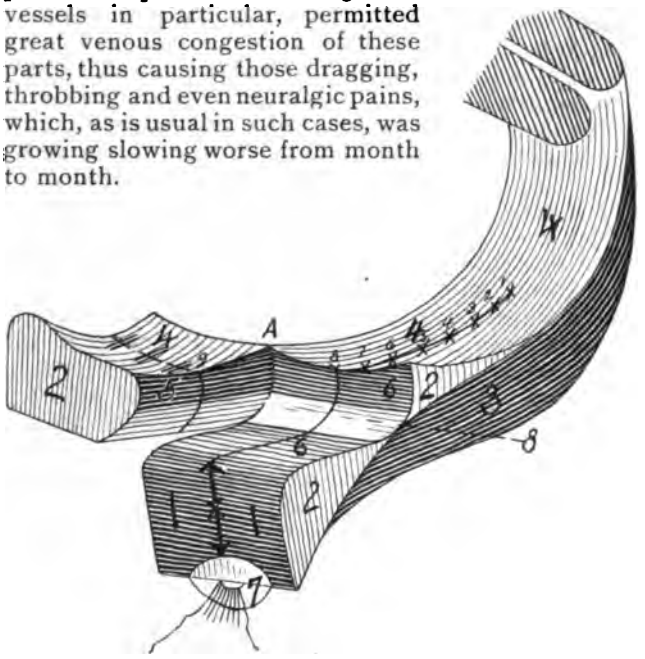
* Point of fluctuation lay quite near the right sacro-iliac synchondrosis.

cavity was daily irrigated with 1 to 5,000 bichloride solution and with 2 per cent boracic acid solution, alternating. During the operation Tiersch's solution was employed for sponging, at a temperature of about 102 to 103.

Recovery complete. Total disappearance of tumor with restoration of normal relations.

Case 3. Mrs. S.; age 40; Seventh street, Salina, Kan. Laceration of the perineum of 12 years' standing, laying bare the sphincters and dissecting down on right side of same and extending into right sulcus.

Complications: A moderate general prolapse, slight cystocele with consequent urethral and vesical irritability and an aggravated rectocele requiring manual support during act of defecation, except in case of actual diarrhœa. The want of normal support to the pelvic visceræ in general, and of the blood-vessels in particular, permitted great venous congestion of these parts, thus causing those dragging, throbbing and even neuralgic pains, which, as is usual in such cases, was growing slowing worse from month to month.



Operation by writer on March 7th, 1889, (before I removed from McPherson in following June) for Dr. Winterbotham, who had just completed the thoracic exsection as reported above, who also conducted both the preparatory and after treatment of this case.

In addition to the present usual denudation for restoring the perineum, I also at this time, for the relief of the rectocele, made the further operation as first performed by "The Pioneer Prince of Plastic Surgery," (of the perineum and pelvic viscera) viz: Dr. J. Marion Simms, to whose labors our profession at home and abroad owes much for both the introduction and development of this branch of surgery. The use of the probe, as he directs for the purpose of mapping out upon the rectocele the surface to be denuded, could be dispensed with, if at all, only after long practice, and by an unusually dextrous operator, and, I presume, even then is still helpful. I used Simms' curved perineum needles, with catgut for the vaginal, and braided silk for perineal sutures.

Result: Complete primary union. Function of the bowel fully restored, with obliteration of rectocele. Patient was confined to bed for two and a half weeks. Has ever since enjoyed freedom from above troubles.

Case 4. Mrs. S.; age 32; North Elm street, McPherson, Kan. Preparatory and after treatment by Dr. Engberg, to whom I am indebted for this case, which was an extensive tear, completely severing the sphincters with about two-third inch of recto-vaginal septum centrally. In this case the injury was of six years' standing, and while the lesion was so extensive there was *no* rectocele, and very slight cystocele and prolapsus uteri, so slight that the proposed operation was expected to give relief, and our labors were not "rewarded with disappointment."

Since this patient had been operated upon about a year before, resulting in absence of even tegumentary union, she had almost despaired of obtaining relief. She was compelled, by reason of fecal incontinence, to constantly wear a pad and bandage and in great measure to isolate herself from society. Was anæmic, emaciated and discouraged.

Operation by writer, on November 18, 1889, assisted by Drs. Engberg, Cordier and Foulks, all of McPherson, Kan. The long duration of this mal-condition with its attendant atrophy of muscular tissue, together with extensive cicatrices, incident to both the original lesion and to the attempted perineoplasty, enlisted interest as well as care in the prosecution of the work that the proper result might follow.

No pains were spared in vivifying and in the complete removal of all scar tissue. Especial care was taken to fully expose the retracted and depressed ends of the sphincter muscles, the apex of denudation extending about five-eights of an inch above limit of rent in recto-vaginal septum.

This case required ten rectal sutures proper, beside one or two supplementary sutures at lower margin of sphincter tied externally. Of course all of these sutures were introduced before beginning at uppermost to tie. These rectal, as well as the seven vaginal sutures, were of catgut. For the perineal sutures braided silk was utilized.

Result: Complete union, sphincter retaining gases, even. Recovery entire, with rapid gain of general health and normal power of endurance.

Case 5. Mrs. B., age 26, Morris Co., Kan. Has one child of eight months, at birth of which complete laceration occurred, extending above upper margin of internal sphincter.

This patient, too, had undergone an unsuccessful operation some three months before, the only result of which was to add to the obstructive cicatricial tissue.

Operation by writer, on March 18, 1890, assisted by Dr. Z. T. Harvey, of Council Grove, Kan., who now had charge of the case, preparatory and subsequent.

This case, gentlemen (as are many others of this class), is so near a counterpart of the last one above reported that I shall not occupy your time in detail. Result entirely satisfactory. Sphincteric action restored, as was also the function of the other muscles of the pelvic floor, or outlet.

Gentlemen, in citing the last three cases I wish to show that rectocele is more apt to follow after a laceration extending quite to, but not involving the sphincters, than it is where those muscles are rent. And that excepting the incontinence in the latter, most all other symtoms are more severe in the former class of cases. Also that these last three cases represent a limited, but nevertheless, useful branch of surgical work, and that while this operation is generally considered trifling and very easy of accomplishment, allow me here to suggest that this view is

mostly held by those who are satisfied with very imperfect results,* and that the surgeon who attempts its performance without having first carefully dissected, and closely studied the anatomy and physiology (in the living body of the organs involved in the traumatism, will certainly meet with much disappointment, as is evidenced by so frequent presentation of cases where operations have resulted in mere tegumentary union, ununited sphincter, recto-vaginal fistulæ and what is worse than all else, viz.: the want of proper support to the pelvic outlet, by failure to catch and unite by "normal suture" the severed ends of the bulbo-cavernosis, transversus perinei and levator ani muscles. And in order that this result be perfectly accomplished the greatest precision in marking out the limit or boundery line of denudation is required. This being accomplished by keeping just outside (*i. e.* in the normal tissue) but very near to the corrugated line made by the margin of scar tissue.

By way of explanation, I wish here to cite a case in point which would have been quite disappointing had the operator not belonged to that class denominated "Gentlemen of easy satiety," *e. g.* On Ash Street, in this city, resides a young lady of about 22 years, whom in May last I visited, thereby learning that about 8 months prior she experienced her first labor and had therein sustained a complete laceration extending fairly through the internal sphincter.

At the time I informed the lady of the nature and extent of her injury, with its necessary operation for relief; that the operation was of considerable magnitude and that I would operate when she was prepared for it. But because of a misunderstanding, unnecessary to explain here, another physician was called within two or three days who, upon being informed of my visit and of my statements in regard to the case, replied that his experience with such operations had led him to regard them as quite trivial. However within a few weeks he attempted the operation assisted by two or three other physicians of the city, one of whom at least, about two weeks afterward pronounced (in accord with the operator) the operation a success.

Because of trouble incident to her condition, I was was recalled to see her last week, being ten months since my other visit. Her suffering required a vaginal examination, which revealed the following results of the operation, viz.: entire failure to unite those muscles of the pelvic floor, a part of whose function is to carry forward and upward toward the pubic arch the anus and perineal body—the most important feature of a successful operation.

The only visible result of his procedure was a very limited union of skin perinium and a possible faciculus or so of the external sphincter, which, in a near future operation, I can utilize only for the purpose of testing the edge of scissors or scalpel.

The same old sensation of "want of something to hold on to" of course still exists, with venous congestion leading on its long train of symptoms as heretofore, and will so continue, only to grow worse, until an operation has been performed which shall unite the constrictor muscles (of the rectum), as well as to conjoin in a central tendon (or perineal body, if you please), the severed portions of the levator ani, transversus perinei and bulbo cavernosus, for then, and then only, can the normal contour, length and relation be given the vaginal canal with apposition of walls and closed outlet.

In answer to this patient's inquiry, "Why do fecal discharges occur both per rectum et vaginam?" this operator replied that there was just a little opening which, if she would permit him, two or three stitches would close up.

Now, gentlemen! Granted that in this case the recto-vaginal fistula were bridged over, as was suggested by the physician, would such a result then be satisfactory to you?

In conclusion, I ask permission to present the following summary, prefaced by the willing admission that I have nothing original (unless it be this cut or diagram) to offer, but am guided wholly by the direct teaching of Prof. Reeves Jackson and the writings of Sims, Emmet, Munde and Skene:

First. Preparation of the patient is of great consequence. All uterine and vaginal diseases amenable should be first treated. Anæmia and exhaustion relieved by tonics and rest. Patient given a thorough and complete bath, vaginal injections of bichloride solution and complete evacuation of the bowels.

Second. Make *free use* of *scissors* in vivifying that every vestige of scar tissue may be removed, thoroughly exposing retracted ends of muscles, rendering smooth and even the surfaces to be opposed.

Third. Use hot water to control the hemorrhage and as few sutures of fine catgut only, as case will admit of; use little or no torsion, no ferri persulph, or other obstructives to immediate repair.

Fourth. Tie no sutures until hemorrhage is arrested entirely. Use strictly antiseptic catgut and *braided* silk rendered so by a continuous bath or rather immersion in hot wax to which have been added 5 per cent each of acid, carbol and acid boracic.

Fifth. The correct mode of introducing the sutures requires the most care of all the steps of this operation, for it matters not how perfectly all former parts may have been performed, unless *their insertion* be such that when tied they enclose on either side of the proposed line of union, an almost complete half cylinder-shaped section of tissue, failure is almost sure to follow.

To make more clear this very poor pen picture, I have prepared this rude *imitation* of a frozen section.

All the diagrams which I have seen that I remember were arranged to show the different steps taken in performing the operation. Please notice that this plate represents an *undoing* or dissection, so to speak, after the operation has been completed with the special purpose to show the route taken by the properly introduced suture.

By drawing sharply upon your imagination you will likely be able to see in this figure a section of the organs made immediately AFTER THE COMPLETION of perinioplasty for complete laceration. (And I wish it understood that when I speak of *complete laceration* I mean those which destroy, not only the perineal body, but also the rectum, as far, at least, as upper margin of internal sphincter. Of the three lacerations embraced in this report, the last two only were complete. The first incomplete and introduced for above named purpose, *i. e.* to show that rectocele is more apt to follow here than in complete tears, and notice also that this paper is not treating of the primary operation or immediate restoration.)

EXPLANATORY TABLE.

The line running directly through the center of this whole section is intended to represent the vivified surfaces brought compactly together.

No. 1. The skin perineum with first 3 of the perineal sutures, the route of the third indicated by the dotted large circle exposed by cutting and turning off to side, an anterior superior portion of the perineal body marked 5.

No. 2. One of the surfaces made by parallel incisions, one on either side of, and about three-fifths inch from line of proposed union, these incisions extending up to cervix showing the normal concavity of posterior vaginal wall.

No. 3. A portion of rectum.

No. 4. Posterior vaginal wall.

No. 5. Anterior, superior portion of perineal body divided and turned off to the farther side as if hinged at A, in which portion is seen the small fig. 9 representing the last vaginal suture, also the loops of the upper five perineal sutures, two of which are entirely imbedded in the tissues, the other 3 loops showing on floor of vagina.

No. 6. The circle formed by the normal suture when tied, enclosing a nearly half cylinder-shaped body of tissue on either side of proposed line of union.

No. 7. Anus, through which protrude the ends of rectal sutures of catgut, which may be cut short as they are tied.

No. 8. Dotted line leads to the loops of two rectal sutures, exposed by the turning aside of antero-superior portion of perineal body; marked 5.

Small figures 1 to 9 represent vaginal sutures extending up septum as far as needed in case of moderate rectocele. Small figures 1 to 8 the perineal sutures tied on the perineum.

The after treatment by strictly antiseptic dressings. If necessary, a silver catheter (female) very carefully introduced along POSTERIOR wall of rectum to relieve accumulated flatus.

The soft rubber catheter to evacuate the bladder twice daily, using care to drop no urine on the wound. Keep the bowels confined for 8 or 10 days and the patient in bed for three weeks, or two and a half at least.

This paper, gentlemen, since its inception, has to me unconsciously, and no doubt to your minds, abnormally grown. But, thanks to your patience, I have finished.

SOCIETY PROCEEDINGS.

Chicago Medical Society.

DR. F. BILLINGS.....*President.*
DR. J. C. HOAG.....*Secretary.*
Pub. Com.— E. J. Doering, W. T. Thackeray, Jno. A. Robinson.

CHICAGO, December 15, 1890.

Dr. T. J. Watkins exhibited a *Perineal Shield* devised by him:

Mr. President: The use of this instrument is to shield the recently injured or repaired perineum from urine until its wound is healed. It consists of a narrow end which is inserted between the labia, underneath the urethra, and a broad end which extends over the perineum. The instrument fits the sides of the labia, in any case, so perfectly that none of the urine touches the perineum. The instrument is made of hard rubber and so is easily kept clean. It is readily manipulated by the patient.

I have probably used the instrument in twenty cases in the after treatment of perineorrhaphy, and in but one or two of them has sloughing occurred about the stitches in the region of the fourchette, as in my observation has nearly always obtained when the wound has not been perfectly shielded from urine.

The perineal shield has been very kindly made for me by Hausmann, McComb and Dunn, of this city.

C. M. Hansen, M. D., read a paper on *Studies in Chronic Retrobulbar Neuritis:*

I must commence my paper with an apology for its title; first, because I ought to have named it clinical studies; second, because the studies can hardly be called my own, as all of it rests on the studies of other men.

Chronic retrobulbar neuritis is a purely clinical term, and what I have to say will chiefly rest upon two cases of mine, one of which I shall have the pleasure to present here to-night. In a short paper as this I cannot, of course, attempt an exhaustive essay on my subject. I therefore confine myself to give a short statement of the different clinical features of the disease, or the diseases, that are described in common as chronic retrobulbar neuritis.

The theory of a neuritis of the part of the optic nerve between the bulbus and the chiasma, appeared shortly after v. Graefe had introduced his careful examination of the visual field for diagnostic purposes. This examination would show that besides the modifications of the peripheral vision and besides the positive scotomata, as they appear in chorio-retinitis, there existed negative scotomata, of which the patients were not aware themselves, but which could be demonstrated by testing the vision with sufficiently small white and colored objects. As such negative scotomata were always found in the central part of the visual field and generally by intact peripheral vision, they were naturally classified as a distinct form of disease against those forms where the peripheral vision is alone affected. v. Graefe named this form "acquisite amblyopia with unrestricted peripheric vision," and as the typical specimens he put down the alcohol and tobacco amblyopia. If, subsequently, in the course of the disease, atrophy of the optic nerve would set in, he considered it as a more intensive effect of

the same causes, and he stated that in no case of central amblyopia the prognosis would be so serious as by a genuine atrophy.

As the anatomical basis for these clinical symptoms he naturally considered pathological changes of those fibers of the optic nerve, that supply the macula lutea, the so-called papillo-macular-fibers. In this way the term chronic retrobulbar neuritis came to embrace the chronic diseases, that are characterized by the presence of a negative central scotoma, at first for colors, later for white, by more or less preserved peripheric vision and, at least in the first stages of the disease, no ophthalmoscopic changes, while later atrophy of the papilla may occur.

In the literature afterward it appears that the chief interest has always centered about the group of cases, which are hereafter described as central amblyopia or the tobacco and alcoholic amblyopia, which are by far the most frequent cases of retrobulbar neuritis, so that the central amblyopia is placed as the typical form of retrobulbar neuritis against all the remaining "atypical" cases. By one group of authors (Förster, Krenchel, Nettleship), the central amblyopia is described as a purely functional amblyopia with favorable prognosis and as a well defined form of disease against all other cases, where the central scotoma is found together with atrophic and neuritic changes of the papilla which cases are classified together under the name of "axial neuritis" with doubtful prognosis. By another group of authors, headed by Leber, the alcohol and tobacco amblyopia is described as a disease of the optic nerve, a genuine retrobulbar neuritis, on account of the frequent occurrence of a partial papillary atrophy during its course, and on account of its functional analogy with the symptoms of an optic neuritis; they conclude therefore, that the existence of a central scotoma is in every instance a sufficient proof, that the same anatomical changes are taking place, only the degree is different. Leber's theory has during the last years won some superiority, as a series of anatomical investigations have shown, that a central scotoma *can* be caused by a partial degeneration of the fibres of the optic nerve.

Lately, besides the different views of the relation between the amblyopia of intoxication and the remaining forms of retrobulbar neuritis, diverging opinions have arisen as to the different forms of amblyopia, caused by different intoxicating agents. To these I will return by the report of my cases.

The reported anatomical researches are the following: Samelsohn: 63 years old man with a central scotoma of 2 years' standing, possibly abuse of tobacco and alcohol. Degenerative changes were found in the optic nerve from the canalis optic downward, most developed in the upper part, decreasing toward the eye. Besides chronic pachymeningitis. Nettleship: Similar retrobulbar changes by a diabetical patient, with certain abuse of tobacco and alcohol. Vossius and Bunge: Very considerable atrophical changes in chiasma and tract optic. The patients presented atypical forms of central scotoma and the atrophic changes were evidently connected with spinal disease. The most extensive researches are made by Uhthoff, who by six autopsies of chronic alcoholists found considerable atrophic changes in the optic nerve between the chiasma and the eye. A typical central scotoma was only demonstrated in two of his examined cases. In his latest work: eye symptoms by multiply sclerosis, Uhthoff shows, that there may be atrophy caused by proliferation of connective tissue immediately behind the bulbus, without giving any visible symptom in the ophthalmoscopic view of the papilla or the fundus of the eye.

If we admit the alcohol—tobacco—amblyopia as the typical central amblyopia, this latter case is unquestionably an atypical case. The lead seems to be the intoxicating agent here, and it seems to act through a neuritis; although it is not beyond doubt that it may be an atrophy of syphilitic origin.

As to the nature of the typical central amblyopia, which is in nearly all cases caused by abuse of alcohol and tobacco together, we stand at the point of the actual disagreement. On one side Uhthoff based on his great material, contends that alcohol is always the chief agent, and that it acts through a real retro-bulbar neuritis, which in some way or other preferably attacks the papilla-macular fibers of the nerve. On the other side the English school contends the absolute priority of the nicotine, and base this opinion on typical cases of central amblyopia by temperance men, whereas, no one has seen such case by a drunkard who did not smoke, simply because such a phenomenon has not been found yet.

In all of Uhthoff's autopsies he found a descendant neuritis, always together with a chronic meningitis. Now it is well known, that alcohol is liable to affect the meninges, and this is never known of nicotine. Where Uhthoff therefore has proved that all of his smoking alcoholists had descending optic neuritis, while only a few of them (only two of the six anatomically examined), had a typical central scotoma, then we are allowed to suppose that the neuritis has been caused by the alcohol and that the typical central scotoma found by some of them has been caused either by especially degenerated papilla-macular fibers in few of them or by the nicotine in some way, which the anatomical examination does not explain.

For we do not know what is the anatomical basis for the tobacco amblyopia, it is possibly of different nature altogether than the other amblyopias of intoxication. While namely the alcohol and the lead act upon the vision through a neuritis, and the existence and form of the scotoma possibly depends upon, which nerve fibers are first attacked; the nicotine may cause no neuritis at all, but act either on the gray substance of the brain or by producing a spasm of the retinal bloodvessels. (Hirschberg.)

This theory might explain the apparent disproportion that the scotoma is always more complete and pronounced in the tobacco amblyopia than in the other toxic amblyopias, while the restitution to health is so much easier, surer and quicker by the tobacco than by the other amblyopias.

Of the rare reported cases of amblyopia caused by sulpho-carbon, osmic acid, iodoform, I have no experience.

Leaving the amblyopias of intoxication behind, we meet all the atypical forms of chronic retrobulbar neuritis. When I commenced writing this paper, I had intended to treat these cases rather extensively, but I find the scope of a paper too short for the subject. So instead of a critical discussion, I will confine myself to render the systematical result, as it seems to stand now, chiefly referring to the last year's books on this subject: Uhthoff, on eye symptoms

by multiple sclerosis and a dissertation of Edw. Jensen, containing the experiences during many years on the Copenhagen Clinic.

The result of these works is a classification of the atypical retrobulbar neuritis into:

The stationary scotomatous atrophy of the optic and the progressive scotomatons atrophy of the optic.

The first category will embrace chiefly Leber's hereditary disease of the optic nerve, together with similar forms, that begin under the shape of a central amblyopia, but later develops into a stationary partial atrophy. To the same classes may be counted cases of acute retrobulbar neuritis, that end in stationary atrophy, often with only a small part of the peripheric vision left.

The second class, the progressive scotomatous atrophy, begins like the former as a central amblyopia, in its later course the disease will show itself to be connected with a spinal disease, in most cases multiple sclerosis of the spinal cord, in other cases tabes dorsalis. In this form of the disease syphilis will often play a role as the etiological moment. Most autopsies of chronic retrobulbar neuritis have been performed on this sort of cases, and it has given rise to the theory that all diseases where a central scotoma is chief symptom, should have the same anatomical basis.

Although it looks as if the systematics of the chronic retrobulbar neuritis were now in full order, we will in our practice have to base our diagnosis and prognosis not of the etiological moments alone, nor of the form and nature of the scotoma, and the visual field, nor of the ophthalmoscopic view alone, we must consider all these facts together, and thereby we may, even without the help of the pathological anatomy, acknowledge the real nature of the case, make the exact diagnosis and be sure of our chief object in this kind of diseases: the prognosis.

Presentation of cases: 1. G. B., aged 30, Norwegian, presents a typical and highly developed specimen of a central amblyopia, caused by excessive use of tobacco and alcohol. He has been an inveterate smoker since childhood, he was addicted to the liquor only for a short time and has been abstinent during the last half year. The disturbance of his sight commenced July last and has deteriorated steadily. He has been using tobacco till about last week, when I saw him for the first time.

He is a myope about 5 D. His vision is less than $\frac{10}{200}$, he counts fingers in a distance of 12 feet. No improvement by correction with lenses. Visual field normal in extent, with a very large central scotoma for red and green and a smaller central scotoma for white and blue. The ophthalmoscope shows symmetrically on both eyes a marked white color of the temporal third of the disc, in sharp contrast to a somewhat hyperemic condition of the rest of the disc. No other signs of neuro-retinitis.

2. A. S., aged 32, Swede. He had an ulcus penis 7 years ago that was treated with mercury, never secondary affections. He was a farmer in his native country, but here he became first a painter, and afterward got employment in a tin-ware factory, where he had to do the plumbing. A year ago his sight commenced to fail, and has been slowly decreasing. He has been treated by a faith-curist for a long time, came to me in August h. a.

Refraction normal. V-$\frac{20}{60}$. Visual field normal for white, but very restricted for colors. A marked central scotoma for red, green and blue, not for white. The scotoma is much smaller than that of the former case, and is atypical s: the oval has its longest axis (!). The ophthalmoscope shows on both eyes an unmistakably atrophic color of the whole disc, no signs of neuro-retinitis.

The patient presented no signs of secondary nor tertiary syphitis, and had no certain symptoms of lead intoxication, only a slight grayish color of the gingiva around the teeth.

Iodide of potassium had no effect, but his vision seems to have improved a little, after he has left the plumbing.

Dr. T. L. Potter read a paper on *The Influence of the Mind Upon Disease.*

My paper to-night is a little out of the ordinary line, yet it occurred to me that a brief discussion of this subject might be of interest to the society. These latter days have been ones of great harvest and notoriety for all the mind healers, psycho curers, faith healers, metaphysical doctors, etc., etc. Often have I been asked by patients and others if I took any stock in these wonderful results which have been attributed to these faith cure doctors. And my answer has usually been that there might be something in it only so far as functional diseases were concerned; but never if organic changes were involved. Now then, for an explanation: It seems to me plenty of proof can be adduced to show that not only the patient's mind can or does influence his disease, *even* though it is *organic* in character; and further, that his mind is unquestionably influenced by his environment and attendants. Doubtless all can recall instances in his own experience illustrative of this point. My attention was early drawn to this subject, the patient's personality in his disease, when I was an interne in Mercy Hospital in 1880. Two patients, one afflicted with caries of the metatarsal bones, and another with necrosis of the humerus, while improving, became possessed of the idea that they never could recover. In spite of all the persuasive eloquence which could be brought to bear upon them, they adhered to their belief tenaciously. Both were around the hospital, eating and sleeping well, and gaining every week; their wounds were granulating very favorably and in fact they both were improving physically as well as any patients I had ever seen. The patient who had caries of the big toe was a school teacher of about 40 years of age, of more than the average intelligence and I tried to reason with her concerning her foolish belief in the face of daily improvement, that she would not recover. Explained to her *in detail* that death rarely occurred in these cases, and then only in badly nourished patients. But she would always close the conversation by saying: "Doctor, I know it seems unreasonable to you, yet I cannot *feel* otherwise than that I shall never recover."

Well, unfortunately, *erysipelas* attacked her foot and involved the leg to the knee; she was making an excellent recovery from this, the erysipelatous blush had about left, when suddenly a return of very high temperature with unconsciousness occurred one Sunday evening at 7 P. M., indicating probably acute erysipelatous cerebral inflammation, and she was dead by next morning.

In the other case, the necrosis of the humerous, pa-

tient was a young man of about 25 years, and was doing splendidly after removal of the necrosed bone, but he never ceased to talk about the fact that he never would recover. I lectured him severely, saying that as he was improving each day and was young, with the world before him, he should be ashamed to be so despondent, especially as his disease was a common one and in no way necessarily fatal. He improved so much that he was in the habit of leaving the hospital for long walks and rides. It so happened I left the hospital for a two weeks' vacation, and upon my return was informed that he was dead, a dysenteric attack, which the attending physicians could not relieve, had caused his demise. These two cases especially impressed me and I have been intensely interested in the matter of the patient's personality in diseases ever since.

History is full of peculiar causes of death which are authentic.

Homer, we are told, actually died of a broken heart, from disappointment at not guessing a riddle. Sophocles died of joy at being a victor in his last tragic contest. Mozart wrote his immortal requiem under the conviction that it would be for himself. John Hunter, in explanation of these and similar premonitions, has said: We sometimes feel within ourselves that we shall not live, for the living powers become weak and the nerves communicate the intelligence to the brain. He himself intimated on leaving his home for the hospital, that if a discussion which awaited him at the hospital should take an angry turn it would cause his death. A colleague gave him the lie and he expired almost immediately in the next room.

Now, briefly, let us look on the obverse side of this question. How frequently has it been our experience to find people, particularly of sedentary habits, afflicted with ailments existing *first* in their imaginations. These same patients may ultimately be seized with disease if the mind is not brought back to a healthy tone.

While we submit it is true that imagination causes much ill health, certainly it is within the range of our experience that the *imagination* has proved an effective cure when medical skill has been baffled. The success of so-called attenuated doses, faith and mind cures, is clearly evidence of the fact.

The cheerful patient who is willing to co-operate with a physician and friends, is much the better patient; his chances for recovery are better. The patient whose mind is worried with harrassing fear, *loses sleep* and is apathetic as regards taking nourishment. Consequently, *sleep* and *nourishment* being withdrawn, a gradual decadence and death must follow.

It seems to me that the cheerful patient who is anxious to recover and willing to do as advised, be he *ever so ill*, has largely the advantage over the despondent one. The mind in these cases plays an important part. The surroundings of the sick-room should be pleasant; cheery friends and nurse. Above all, the physician himself should by his own *personality* infuse *hope* into every case.

This reliance on the part of the patient upon his physician and nurse to relieve him, is the highest kind of *faith cure*, and the only kind I believe in.

The physician who is incapable of infusing his clientele with a strong belief in himself, in his personality, cannot look for any great amount of success in the bedside practice.

The properly educated physician, who recognizes the necessity of putting himself en rapport with his patients and teaching them to rely upon him and all will be well, must necessarily be, in a certain sense, a faith healer, for with the absence of such confidence on the part of his patients, he cannot be assured of as large a measure of success were the *contrary* true.

Dr. J. J. M. Angear. Mr. President: This is a subject I am greatly interested in, and I have noted many interesting cases. Soon after I came to the city a couple of young men from the P. & S. were attending a relative of theirs who had neuralgia, or something of that character. There was intense pain in the side, and as she did not get along very well, I was sent for. I called, and approved of the treatment and said that I thought if she had patience these remedies would relieve her, and talked in that strain a little while so as to get up her confidence in the young man who had not yet graduated.

I think in nearly as short a time as it takes me to tell the story, she was laughing, talking and having a pretty good time with the rest of us. In that case it was simply a lack of confidence.

She knew that her cousin had not yet graduated in medicine, she was suffering considerably, but my going in and being an older man, and perhaps my position as a teacher of these young men may have helped to give her greater confidence, and just as soon as that confidence was secured, the pain disappeared and everything was lovely.

Another case was a young married lady who had recently recovered from the puerperal condition. She was in a very nervous state and thought I ought to make frequent visits. One evening her husband came for me; I told him that it was hardly necessary for me to go to the house but that I could send some medicine that would do just as well. The husband seemed to take in the situation exactly and said, "No, doctor, it will not do; it is you she wants," so I went. She was not able to lie down on account of dyspnœa. They informed me that it was of no use to give her any medicine whatever because she could not swallow it. I had nothing with me but my hyperdermic syringe and a little morphine in the case, so I took a little of the morphine and made a solution, put it in her mouth, and sure enough, it did dribble down the corners of her mouth, she could not or would not retain it, but I said in positive tones that it made no difference, there was enough retained to be absorbed by the tongue and mucous membranes of the mouth, and that she would be better in a little while; we must be patient. In a few minutes I suggested that the husband, who had been sitting on the bed holding the patient against his breast, should get out of that position and we would put an extra pillow in his place. He did so and she still breathed; bye and bye we removed the pillow, and I said in a peremptory tone that she could now swallow. I did not say that I thought she could or anything of that kind; I simply said she could and putting some water in her mouth and she swallowed it. In a minute or two I concluded we could remove one pillow, and then another and so on. In less than half an hour she was lying down comfortably, and was talking, laughing and enjoying herself remarkably well. I could relate any quantity of such cases, but will simply give a case of the big toe, it is so apropos.

Very early in my practice in Wisconsin, a man while attempting to roll a log with an ordinary hand-spike, something slipped and the hand-spike came down and struck him on the big toe and mashed it. It was not in a bad enough condition to justify amputation, but he said he was going to die—that he knew he would never get well; and to make a long story short it didn't heal and he took on lung troubles, coughs and night sweats, and finally died with all the symptoms of consumption. There was no post-mortem examination made, but I believe it was a case of consumption that came on from that injury—that he persisted from first to last that it was going to kill him, and it did. It seems as if he died on purpose to show that we were not telling the truth.

Dr. R. W. Bishop. Mr. President: I would like to mention one case that occurred in the practice of a leading physician of this city, about three years ago. A lady who was well acquainted with the doctor came into the office and said she had not been able to speak aloud for some time. She was of rather a hysterical temperament. The doctor examined her throat and prescribed some medicine. He laughed about it afterward and said the medicine would do her no harm if it did her no good, and that it would not affect her voice; but he told her emphatically that she would be able to speak aloud in a week. At the end of that time she came back, and sure enough she could speak aloud. The doctor fixed up some medicine from samples, such as are left in every physician's office, and a week later when she returned she could speak as well as any one and has used her voice perfectly ever since. Of course that might have been a case of hysterics, but there is no doubt it was the influence of mind upon her voice. She had taken cold and was afraid she could not use her voice at a certain meeting, and I believe the fear that she would not be able to use her voice on that occasion caused her to lose her voice.

Dr. Bayard Holmes. Mr. President: I think this society ought to have some axioms to base their discussion upon, and perhaps one axiom we can all agree upon would be that, "There is no effect without an adequate cause." Scientific men have based their discussion and inferences upon this axiom for years. When the Western world first began to read the Chinese astronomical literature they learned that during the reign of certain emperors and kings in certain years the sun was swallowed up at midday by certain dragons. This was easily elucidated when we figured back and found that at the times corresponding to those dates an eclipse of the sun actually occurred. So in regard to the mysterious case of the big toe, I would say very positively that the patient died of sepsis, that the pneumonia was undoubtedly septic pneumonia. If the toe had been kept clean this great catastrophe would have been averted, in spite of the opinion that the patient held. In regard to the two mysterious deaths, with such premonition, in Mercy hospital, perhaps the patients had adequate cause for such belief from the experience of those they met there on their first admission. This was doubtless brought about also by the frequent spread of erysipelas through the wards. I do not wish to make light of this matter, but it does seem to me that there must be a tangible basis for the belief that death is about to occur. In every case death is brought about by positive tangible causes.

Dr. L. T. Potter, in closing the discussion said: Mr. President, I have been interested in listening to the different remarks that have been made. I did not at all desire to give the impression that mind could produce organic disease; I do not believe that any more than I believe a man can lift himself over the fence by his boot straps, but I am certain that the mind of a patient with a fancied disease can produce disease. Dr. Clarke suggests that the four o'clock seeds did not move the bowels, yet we know that persons may faint at the sight of blood, and there are persons who because of a sudden noise will have an involuntary evacuation. And so we could go on and multiply the instances. An unpleasant odor makes a person vomit; it is not because they have taken an emetic, if they could not smell they would not vomit. If in the other case the person was blind he would not have fainted. We know of innumerable cases where functional effects are produced by mental effects.

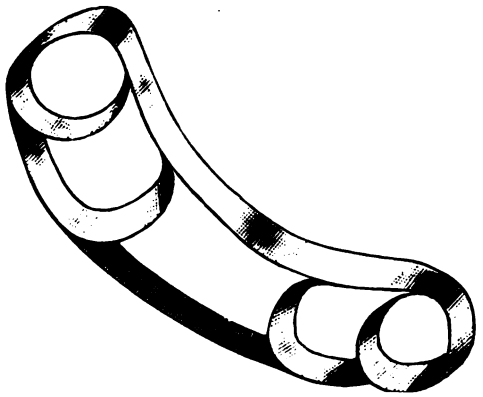
The idea I desired to convey more especially in this paper was that the physician, in bedside practice particularly, should infuse hope into the mind of the patient. He should impress them with his own personality and let them lean upon him and they will feel the better for it. We all know of the success of a practictioner in this city that has been rather remarkable. His practice is done in the office, and I am told by those who have been to him that he absolutely promises in every case to eradicate any disease they may have. And this abiding faith he has in himself gives them great cheer and has a favorable influence on the patient. I am too skeptical perhaps in many matters, but I am not at all disinclined to believe that the patient's surroundings, his own mind and that of his medical adviser, will have a very desirable effect upon conditions that may exist in the patient when he is sick and in many instances hasten his recovery.

CHICAGO, Jan. 5, 1891.

Dr. Truman W. Brophy. Mr. President: The case I present to you is one of double fracture of the lower jaw. The patient came to me from Dr. Orth, of the Alexian Brothers' Hospital. The parts were not placed in position for some three weeks after the accident. The fracture occurred on the left side between the first and second molar teeth, at the point where the facial artery crosses the inferior maxilla. Upon the right side, between the cuspid and lateral incisor, is the second fracture. The displacement that occurred in consequence of the fracture is illustrated by this drawing. The force of the muscles attached to the genial tubercles has drawn the anterior fragment downward, and the action of the masseter and internal pterygoid muscles elevate the posterior fragment. In order to overcome this displacement and readjust the part to its proper position requires a great deal of force. The many methods of retaining the parts in apposition I have found hardly adequate to retain them in perfect immobility. The simple device I have adopted in this case has enabled me to fix the parts and adjust the teeth so as to re-establish the proper antagonism. This was accomplished by the device for the anterior part shown in this drawing. It consists of bands of gold, so fixed to the teeth as to make them wholly immovable.

The bands are fixed two teeth at least away from the point of fracture, the fracture having occurred be-

tween the cuspid and the lateral incisor, the bands are fixed to the two bicuspid teeth; the tooth in immediate contact with the point of fracture is generally loosened somewhat and is not well adapted to the

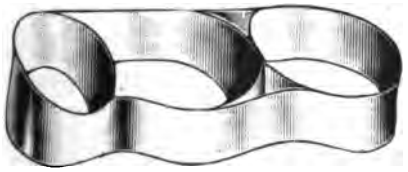


Splint for anterior fracture.

fixing of these bands. They are made broad, extending down to the gum tissue and up to the masticating surface of the teeth. This band is fixed so as to make it impossible for the bone to move. The posterior

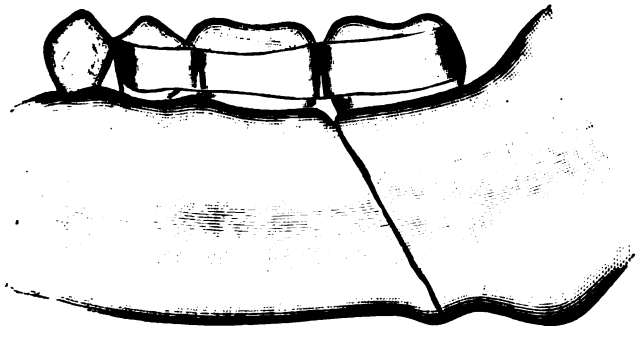
Splint adjusted.

fracture is treated in the same way. In case the interdental spaces are not sufficiently wide to admit of two thicknesses, one plate may be introduced and the second band lapped over that, so as to form a com-



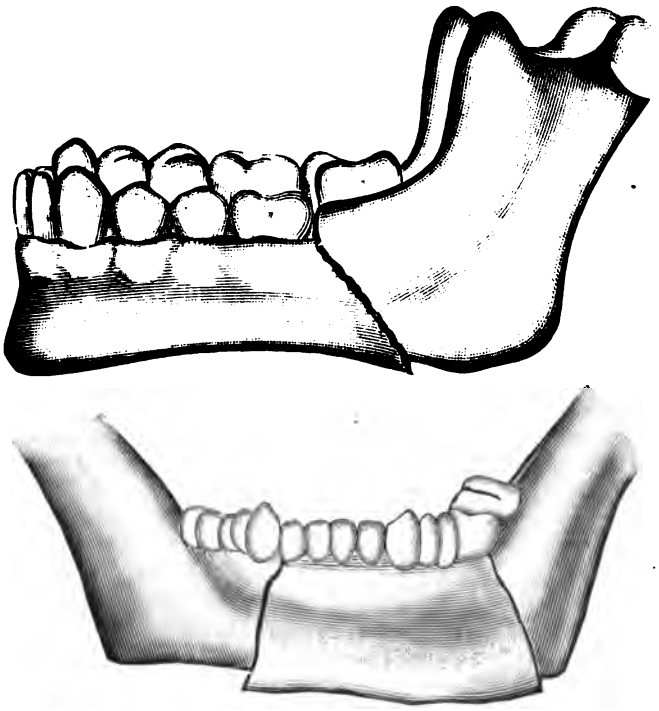
Splint for posterior fracture.

plete band for each tooth. After first putting them in apposition, an impression of the parts is taken in wax while the teeth are in proper position, then the two bands are taken off and placed in wax in the rela-



Splint adjusted.

tion they will have when the bone is properly adjusted. Having done this, we take strips of gold and lay them along the teeth and attach them together, and the bone is crowded up and approximated. If we wish to exercise more than ordinary care, these may be secured more firmly in position by making use of oxyphosphate of zinc and cementing them firmly in place.



Double fracture of the inferior maxilla.

I present this as a novel way of adjusting fractures, but one which accomplishes all that may be desired. The advantage is that the parts are put in proper position, are held immovable during the process of repair and the patient has full control of the lower jaw in speaking, etc.

This patient is subject to no inconvenience whatever in masticating food or in speaking. You will observe there is no displacement, the antagonism is correct. Adjustment of these bands holds the jaw firmly in place.

Dr. J. Frank read a paper on *A Remarkable Case of Skin Shedding.*

The case which we are to consider is unique, not only in the fact that the skin shedding was complete, but in its recurrence for thirty-three consecutive years on the same day of the month, and within a few hours of the same time of the day.

In a research of medical literature, in which Dr. W. C. Sanford, James S. Newburg, Montgomery and Anthony kindly assisted, we failed to find a parallel case. Cases have been reported where the shedding was complete, but none which recurred at regular intervals.

The patient, John H. P——, of Phillipsburg, Montana, called upon me July 22d, 1890, with a letter of introduction. I sent him to Saint Elizabeth's Hospital in order that I might be better able to watch the progress of the disease, and he was admitted to a private room on July 23d, 1890. While there the patient was seen by a number of prominent physicians of this city,

and studied with special interest by Drs. James Nevis Hyde, McArthur, J. S. Newburgh, Anthony F. H. Montgomery and Luken.

Mr. P——, a miner by occupation, has been exposed to all the hardships of camp life, but has born them with ease, being well formed, and apparently in perfect health. Height 5 ft. 9½ in., weight 150 lbs., eyes dark, hair dark brown, full set of natural teeth, special senses all normal, intelligence good, and skin perfectly normal. No birth marks were to be found.

The history, as given by himself, is briefly as follows: Father and mother both living; father 68, mother 61. Maternal grandmother living, and in her 97th year.

Mr. P—— is the second of a family of thirteen children, all of whom are living and in good health. Has never had any of the eruptive fevers, and has never required the attendance of a physician. Had two light attacks of gonorrhœa, and was salivated once by the breaking of a mercury retort, but took no treatment for either.

He was born Dec. 29th, 1857, during the Kansas and Missouri trouble. His mother was driven at night from her home in Franklin to the Meredensen River, four miles distant, where she was confined in the open woods, with no attendant but her mother. Mother and child were taken to shelter the following day. As there was nothing peculiar occurred during her pregnancy or confinement, the woman cannot account for the skin shedding of her child which took place later.

On the 24th of July following his birth, he was suddenly taken ill—vomited, became hot and feverish, and in a few hours the entire surface of the body was scarlet red. Symptoms increased for three or four hours, when they gradually subsided, and the patient was supposed to have recovered; but on the fourth or fifth day following the attack the entire cuticle was cast off, and a few days later the nails were also shed. This was repeated each year on the shme date. His mother took no notice of it at first, thinking it was one of the eruptive fevers. When he was seven years old, he was taken to a physician in Denver, who kept him under observation for a time, but gave no treatment. He has never been attended by a physician except out of curiosity.

Mr. P—— first remembers the shedding in 1865 when the cuticle and nails were cast off while at play. These attacks have been repeated each year on the 24th of July, usually at 3 P. M. and never later than 9 P. M.

The paroxysm begins abruptly. Patient has a feeling of lassitude and weakness of fifteen to twenty minutes duration followed by muscular tremors, nausea and vomiting; a rapid rise in temperature; skin and mucous membrane of tongue and mouth becomes red and inflamed, and is hot and dry. No perspiration appears after the paroxysm begins until the cuticle is cast off. Acute symptoms begin to subside in from three to four hours, and are entirely gone by the end of twelve hours, with the exception of the redness of the skin which remains thirty-six hours longer. Patient has been delirious three times during these attacks—once for nine days.

In early life the cuticle began to be shed on the second or third day after symptoms appeared and was complete by the fifth day; but each succeeding year it takes a little longer, until now it is ten or twelve days before shedding is complete.

The cuticle can be detached in large sheets, and he has always been able to remove it from the hands and feet in one piece from each, in the form of gloves and moccasins.* Nails are loosened and crowded off in about four weeks after the acute stage. On the 24th of July, the day following his admission to the hospital, the above symptoms commenced to occur with marked similarity.

A number of physicians were present during the acute stage. Among them Drs. Hall, Bartholomew, Luken, Beard, Sanford, Church and Coleman. The patient was seen by Drs. Luken and Sanford at 2:45 P. M. He was apparently well, but assured them he would soon be sick.

3 P. M. Was still walking in the corridor. Very nervous, and had a peculiar anxious expression.

3:15 P. M. Retired to his room. Nervousness increased. Slight muscular tremors. Hands, wrists and neck beginning to get red.

At 3:30 P. M. I saw him, and found his entire trunk and arms down to the elbows scarlet red, resembling the appearance of a scarlet fever patient, but cuticle was not elevated.

3:50 P. M. Nausea; trembling over whole body; redness extended down to the great trochanters. Mucous membrane of tongue and mouth congested.

3:55 P. M. Vomited two drachms of thick, tenacious mucus, streaked with blood. Was given a glass of warm water and a teaspoonful of syrup ipecac.

4:05 P. M. Pulse 68; temperature 97° F. Slight flush over limbs, more noticeable over the left. He claimed to get an electric shock when the skin was touched. His head was covered so it was impossible for him to see and three of the physicians made a careful test, finding his statement was correct.

4:10 P. M. Nausea and attempt to vomit. Nausea subsides between paroxysms of vomiting, and patient converses intelligently. Right lower limb as red as trunk; left beginning to flush. Tongue and mucous membrane of mouth very red. Trembles greatly; cannot carry glass to lips. Given two glasses of warm water and one dram syrup ipecac.

4:15 P. M. Redness shows through the soles of his feet, giving them a yellowish-red appearance. Skin has a warm, greasy feel. Perspires only under eyes and on forehead.

4:20 P. M. Left limb nearly as scarlet as trunk.

4:25 P. M. Vomited one pint of water and mucus.

4:30 P. M. Pulse 68; temperature 99.5 degrees F.

4:50 P. M. All the body, excepting the forehead and beneath the eyes, scarlet red, showing distinctly in the palms of the hands and soles of the feet.

5:00 P. M. Pulse 76 temperature 99.4 degrees F. Vomited a small amount of mucus.

5:05 P. M. Nausea and acute pain. Given a glass of warm water. Trembled so he could scarcely carry glass to lips. Vomited immediately after taking water.

5.30 P. M. Pulse 76; temperature 99.3 degrees F.

5:45 P. M. Vomited four drahms of thick gray mucus. Extreme pain; bowels moved; stool light colored.

6:00 P. M. Pulse 76; temperature 99.3 degrees F. Surface of body warm, but patient complains of being cold.

6:30 P. M. Pulse 88; temperature 101.2 degrees F. Resting quietly. Took a light supper.

7:35 P. M. Pulse 92; temperature 101. 4 degrees F.
8:30 P. M. Pulse 92; temperature 102 degrees F.
8:45 P. M. Given 10 grains of antipyrin.
9:30 P. M. Pulse 88; temperature 103 degrees F. Nausea and an attempt to vomit. Symptoms soon subsided. Patient rested quietly from 10 P. M. until 7 A. M. the following morning, sleeping most of the time.
10:30 P. M. Pulse 80; temperature 100 degrees F.
11:30 P. M. Pulse 80; temperature 100 degrees F.
July 25. 12:30 A. M. Pulse 84; temperature 101.7° F. Given 10 grains of antipyrin.
2 A. M. Pulse 80; temperature 101.4° F.
5 A. M. Pulse 88; temperature 101.2° F.
7 A. M. Pulse 84; temperature 100.5° F. Still drowsy. Has a slight headache.
9 A. M. Pulse 80; temperature 99.8° F.
8 P. M. Pulse 84; temperature 101.5° F.
July 26th. 8 A. M. Pulse 84; temperature 99.5° F. Cuticle beginning to scale on scrotum.
8 P. M. Temperature normal. Skin has assumed its normal color. Redness faded in the same order as it appeared.
July 27th. Mucous membrane of tongue and mouth came off. Tongue resembled a typhoid tongue after it has cleared up.
July 28th. Perspires freely from forehead and under eyes. Cuticle over chest raised up in the form of blisters probably caused by the perspiration beneath.
July 30th. Cuticle removed from trunk and arms to wrist.*
August 1st. Cuticle detached from lower limbs to ankles.*
August 2d. Skin taken from right hand in the form of a glove.*
August 3d. Left glove removed.* Skin also loose on upper surface of feet. Soles still intact.
August 9th. Right moccasin removed.*
August 11th. Left moccasin removed.* After the removal of the cuticle the skin was very soft and delicate, resembling that of a child. Where the cuticle was thick—as on the palms of the hands and soles of the feet—the new skin was very sensitive, and to protect the feet he wore the moccasins for several days after they had been removed, pulling them on and off as he wished. At the time Mr. J. P. left the hospital Aug. 15, 1890, it could plainly be seen that the nails would soon be cast off. New ones were forming at their bases, and the old ones were loosening from the sides and underneath. A thin, blunt instrument could be passed beneath them to their bases without causing pain.

Under date of Aug. 29th, 1890, Mr. J. P—— writes the following: "I arrived at Black Pines the evening of Aug. 22d, went to work that evening and continued until the following evening. Am in perfect health. Enclosed find nails from little finger and second finger of right hand, detached Aug. 26th. Will send the remaining nails in a few days."*

Sept. 19th. I received another letter containing seven more nails. They were from the little finger, and second and third fingers of left hand, detached Sept. 2d; both thumb nails, removed Sept. 5th and the nails from the big toes which were the last to come off, on Sept. 8th. The remaining nails became so broken while at work that they were useless as specimens.

A section of the skin was made and examined microscopically but with negative results.

In concluding I would like to say that for a great portion of this history I am indebted to Dr. W. C. Sanford who was so much interested in the case that he remained up with Mr. P—— during the whole of the first night of his illness.

Mr. President: I saw this case on the third day of the disease; it then presented of a marked case of scarlet fever. Broq, of Paris, has proffered the name pityriasis rubra for such diseases characterized by hyperæmia, universality and subsequent desquamation, of which he subdivides into five forms. Therefore this disease presenting these three characteristics could be classified under what is known as pityriasis rubra, but this would not explain its origin. Judging from the suddenness of attack, evolution and involution of disease, we would say that the origin is in the nervous system and that it is an angioneurotic affection. The speaker is mistaken in that he calls the specimen shown cuticle, it is the epidermis, for when the skin began to peel the underlying new formation presented no abraised papillæ, in fact it was perfectly normal and also from the fact that the nails—which is a modified stratum lucidum layer—was exfoliated and not the hair. It is fair to presume that the desquamation did not involve the deeper layers.

The peculiar feature of the disease is the recurrence on the same day of each year. On looking up the literature of skin affections, I do not find any disease exactly like the one described, but if we look into certain types of hay fevers we will find cases described in which the patients attacked have an attack on the same day and even the same hour each year and possibly, as in this case, it can be accounted for by the fact that it is a disease of the nervous system.

Dr. H. G. Anthony. Mr. President: At the time I saw this patient he was covered with an erythematous eruption resembling scarlet fever to a marked degree. The desquamation had begun on the penis and the mucous membrane of the mouth was already denuded. I questioned the patient carefully in regard to the character of the desquamation occurring in previous attacks, and he told me it always peeled off in large lamellæ, but he stated that the size of these lamellæ was to a certain extent under his control, inasmuch as when he applied oily substances to the body the scales were larger than when he left it to nature, and he remarked that he would oil himself pretty thoroughly this time so as to be able to present to the physicians casts of the feet and hands. This disease closely resembles scarlet fever, and I think those eruptions which resemble scarlet fever belong to the group of the augeoneuroses, therefore, I began an investigation of the literature under that head, but could not find anything, but on turning to erythema I found, in the January number of the *Annales de derm et de Syphilis* for 1890, that Prof. Besnier, of Paris, had written an excellent article reviewing this subject entirely. He states that the literature of the subject up to this time is very imperfect, that the first disease which belongs to this group is erythema multiforma, the second uticaria, and then he gives the forms of scarletinaform eruptions produced by certain medicaments taken internally, that these eruptions are related to urticaria is well shown by the fact that a patient who is predisposed to these

uptions will on taking a dose of balsam copaiba have a urticaria one time and another time have an eruption resembling scarlet fever. Another disease belonging to this group which resembles scarlet fever is the eruption produced by various medicaments applied to the surface of the body, such as the eruption produced in some individuals by the application of mercurial ointment to the surface of the body. There is another disease belonging to the same class, of erythematous eruption, which occurs with disturbance of the stomach, that is the erythema scarlatina form, of Hardy. Besnier then mentions a case reported—I think before the French Academy—by Ferriol in 1876, where a man suffered from desquamation almost similar in character to the desquamation and erythema of Dr. Frank's patient, only in this case it recurred oftener; during one year he had it seven times, and at one time he had it three or four times in a month. The skin came away in large lamellæ, and the author states that the skin of the hands came away in the form of veritable gloves. Later Besnier himself observed a case in which this same class of desquamation after an erythematous eruption and accompanied by constitutional symptoms, occurred every year for seven years in the spring, but it did not occur on the same day each year. With the exception of the fact that the desquamation was not as severe as in Dr. Frank's case and that it did not occur exactly on the same day each year, the cases are identical, and the question is whether we shall make a separate classification of diseases because this disease recurs on exactly the same day every year. I think not, and, therefore, would call it the Yearly Recurrent Desquamative Erythema Scarlatinaforme of Besnier.

Dr. Lester Curtis presented *A Summary of some of the Recent Literature in Regard to the Koch Remedy for Tuberculosis.*

Dr. Koch's paper* giving the results of his experiments with his new remedy, on the human subject has excited such wide interest, and has been so generally read, that I have no doubt it is familiar to every one here. For the sake of completeness, however, I am obliged to refer to some portions of the article; what else I have to say is taken from the reports of those who have used the medicine under Koch's direction, which of course makes them of special value. I shall give the results of what they say as nearly as possible in their own words.

In his paper Dr. Koch says: "The symptoms which occur in man after the injection of .25 c. c. m., appear first from three to four hours after the injection. They begin with a feeling of fatigue, inclination to cough and difficulty of breathing, which increases rapidly. During the fifth hour an uncommonly severe chill occurs, lasting nearly an hour. There is at the same time nausea, vomiting, and a rise of temperature to 39.6° (103° F.) After about twelve hours these unpleasant symptoms begin to abate, and the next day become normal. Heaviness in the limbs and a feeling of fatigue remain for some days, during which time there is a little pain and redness at the point of injection." In tuberculous subjects a reaction similar to the above comes on from the injection of much smaller quantities in most cases 0.01 c. c. m. (1 milligramme) is quite sufficient to produce a vigorous reaction, and is therefore the dose which is recommended at first: "The general reaction consists in an attack of fever which for the most part is ushered in with a shaking chill, the temperature rises to over 39° C. (102.2° F.); often to 40° C. (104° F.), and even 41° C. (105.8° F.) At the same time there is pain in the limbs, tendency to cough and great feeling of fatigue. Often there is nausea and vomiting; and sometimes a slight jaundice; occasionally, also, an exanthematous rash like measles is seen on breast and neck. The beginning of the symptoms is as a rule four or five hours after the injection, and lasts twelve to fifteen hours. Occasionally it occurs later, and is more severe; patients as a rule bear these symptoms remarkably well."

Dr. Koch recommends the experimenter to begin with lupus, since the diseased part is open to observation. In such cases along with the above symptoms are seen redness and swelling of the affected parts beginning sometimes before the chill. "During the fever the redness and swelling increases and may become quite considerable, so that the tissues in places becomes of a brownish red or even gangrenous in appearance. Often the diseased is separated from the healthy tissue by a white border, a centimeter in breadth. After the abatement of the fever the swelling of tke lupus gradually diminishes, and may disappear in two or three days." The spot of lupus is then seen to be covered with crusts of dried serum, which change into scabs that fall off after two or three weeks; and after repeated injections leave a smooth, red scar. Usually several injections are required for complete removal of the lupus tissue. An important peculiarity of the action of the medicine is that it can be given in rapidly increasing doses, so that after the expiration of about three weeks, as much as 500 times the initial dose may be given without local reaction.

"The remedy does not kill the tubercle bacilli, but the tuberculous tissue. Thus the boundary is quite accurately determined up to which the action of the remedy may extend. It can only influence living tuberculous tissue; it has no effect upon tissue already dead; it does not act on dead cheesy masses, necrotic bones, etc., and it is equally ineffective upon the tissue which it has itself killed." * * * Prof. von Bergman* reports thirteen cases of lupus treated by this method. In all of these patients symptoms appeared after injection similar to those described by Koch. One patient had suffered for twenty-nine years. The report was made on the 16th of November; the treatment of most had lasted not more than a week, but in none of them were feverish symptoms now produced by large doses, and the cases seemed to be doing well. Injections into non-tuberculous patients showed very different effects, a fact which makes the medicine of great use in the diagnosis of doubtful cases. Several cases are given in which the diagnosis was determined in this way.

"A large, strong man not quite free from youthful sins had a fissured ulceration, of course not hard at the base (according to Virchow, hardness at the base indicates carcinoma). The diagnosis wavered between gumma and tuberculosis; the microscope indicated the first, the latter was excluded by the non-occurrence of symptoms after the injection."

* "Weiter Mittheilungen über ein Heilmittel gegen Tuberculose." *Deutsche Medicenische Wochenschrift*, Nov. 18, 1890.

* *Berliner Klinische Wochenschrift*, Nov. 24, 1890.

He showed several patients in whom the injection confirmed the differential diagnosis between carcinoma and tuberculosis of the larynx. In some of these patients the reaction came on slowly and was not strongly marked. He says:

"In the third patient the lung affection was slightly marked; the conformity of the temperature to the rule came on very gradually; it is now for the first time 38.7° (101.7° F.). Other phenomena are lacking here."

"In one of these patients there was thrown off a perfectly necrotic conglomeration of tubercular tissue from the anterior end of the rima glottides after the fourth injection. The dose here was 2 milligrammes, and was followed every time by a feeble reaction together with difficulty of breathing and oppression. These cases have very great interest in relation to the diagnosis of tuberculosis of the larynx. It is quite certain that there are cases in which the diagnosis between tuberculosis and carcinoma of the larynx cannot be made, even when a piece has been removed for microscopic investigation."

Dr. Köhler* showed an interesting case of hereditary syphilitic ulcers, where tubercle was suspected, in a boy eleven years of age. A strong constitutional reaction appeared in him after a small injection, but no local reaction. The doctor was not quite sure that there was not a hidden tubercular focus. This was the only case that he had seen where anything irregular had occurred. In several instances he had found after injection tubercular spots that had not been before suspected.

He calls attention to the danger of reinfection in cases of tuberculosis of the deeper portions of the body, and the necessity for prompt surgical interference in cases of this kind which have been treated with the remedy. He concludes his rather incomplete, but very readable, report with the remark: "Gentlemen, what I have been able to present is unfinished and uncomplete, but even this shows that the discovery of Professor Koch is a triumph of science."

Dr. Fraentzel† reports twelve cases of tuberculosis of the lungs treated by Koch's method. Four of these were advanced cases with cavities, and in some of them tubercular affections of other parts of the body. "In all these cases," he says, "the progress of the affection was not interrupted by the remedy. Three patients reacted with an elevation of temperature; in two the autopsy showed no healing process in the cavernous, cheesy masses." All the other cases improved; expectoration diminished, dullness cleared up, weight increased and tubercle bacilli disappeared from the sputum.

"One case will serve as an example of the way in which moderately advanced phthisis progresses under the treatment with the injection. For a series of days after the use of the medicine fever occurs, then the patient becomes accustomed to its use there is no longer fever after injection. By increase of the dose fever recurs and the patient can bear constantly increasing doses. At first .001 g.; later .1 g. Occasionally the fever is unaccompanied with a chill until the temperature rises to 39° (102.2° F.) * * * "Six hours after injection of small quantities fever occurs; the temperature rises to above 40° (104° F.) The general condition is disturbed, there is loss of appetite, feeling of fatigue and drawing pains in the chest. These phenomena disappear slowly. The pain in the chest is very characteristic and analogous to that which lupus patients feel in the affected spot. If the same quantity of the medicine in the same concentration is used on two succeeding days, then no reaction arises, or a very slight one. The chill or the shaking chill returns as a rule, after every new, strong reaction, until the reaction finally disappears altogether. In patients with lupus or affections of the joints, a sufficient explanation is afforded. The former becomes reddened in the affected spot ten hours after the injection, and fever occurs. There is also painful swelling of the diseased joints after injection. A local reaction analogous to the above occurs in the diseased lungs. The fever is to be looked upon as an expression of this. The specific action upon the bacilli by which the latter are not destroyed, however, expresses itself in different directions.

First, their number diminishes in the course of the treatment; second, the bacilli show changes demonstrable by the microscope, which does not occur in patients not treated by Koch's remedy. They show, after injection, four changes in form which may occur at the same time: the bacilli become smaller and slimmer, a part show slight swellings at both ends (biscuit form), a part are broken through in the middle, a part consist of fragments which are arranged like a string of pearls. The latter form occurs rarely, especially in patients who have suffered for a long time with phthisis. At the same time the consolidation of the lungs diminishes, the secretion of the bronchi diminishes very materially, the bacilli are expelled with the surrounding tissue and we see afterward pure cultures of the bacilli in the sputum. Some of the cavities in the lungs are uninfluenced by the remedy, especially the larger ones. The smaller may cicatrize; the greater cavities cannot empty themselves sufficiently."

Dr. Henoch* reports having tried the remedy in one case of tubercular meningitis, in the last stage to be sure, with no very definite result, so far as symptoms were concerned. "The post mortem showed what is common in all cases of tubercular meningitis, *i. e.*, at the base a great amount of exudation rising toward the convexity," etc. * * * "But a very great hyperæmia was present, while in other cases the brain and its membranes, as the result of the pressure which it suffers from within the lateral ventricles, is more usually seen to be anæmic. I learn from Prof. Virchow himself that he had never seen such a hyperæmia and injection of all the vessels of the meninges and gray substance of the brain as in this case." He advises against the use of the remedy in this class of cases.

Dr. Isreal† has examined microscopically portions of tissue from two patients supposed to be tuberculous, treated by Koch's remedy and afterwards operated upon by Dr. Köhler. One case of an old scar in the neck remaining after the removal of tuberculous glands which was suspected of reinfection gave negative results. The other was a plain case of tuberculosis of the ankle-joint.

The objects in view during the examination were

* *Berliner Klinische Wochenschrift*, Dec. 1, 1890.
† *Berliner Klinische Wochenschrift*, Nov. 24, 1890.

* *Berliner Klinische Wochenschrift*, Dec. 10, 1890.
† *Berliner Klinische Wochenschrift*, Dec. 1, 1890.

s, "first, the question already started by Koch," in what way the death and especially the melting away of the tissue takes place" and "to gain information concerning the spread of the bacilli into the" apparently normal tissue.

"The walls of the abscess so far as could be judged from the pieces removed were covered with a cheesy layer 1½ to 2 *m.m.* in thickness, they were very opaque and of a yellow color. Under this was a layer 3—5 *mm.* in thickness, tolerably vascular and reddish white in color. In the many indurated portions, vessels were to be seen which were thickened and whitish in places." Under this was a layer of granulations which reached the sub-cutaneous tissue but did not penetrate it. The skin and sub-cutaneous tissue appeared to be without change. The microscopic investigation of the remainder of the tissue is only provisional but for the present it seems to show the pus discharged from the abscess was richer in corpuscles than is usual in tubercular abscesses, it gave the reaction for mucous and contained fragments of a slough and gave from one to three bacilli for every field examined. "The section through the wall of the abscess showed a peculiar picture so far as this could be judged by a detached piece. There was shown by a weak magnification, a layer of about one *cm.* in breadth which consisted of amorphous granular masses, very opaque and almost completely soluble in acetic acid; by the side of this was a second layer 0.4 to 0.6 *m. m.* in breadth which was much more transparent than the other but was in spots intensely cloudily colored and interrupted in many places by darker points arranged in rows, it had a sharply notched border. Adjoining this was the third layer perfectly transparent and in marked contrast with the living granulation tissue.

The darker points which formed on the boundary line a continuous seam were shown as fatty metamorphosed cells since the slightly noticeable cloudiness in this zone was quickly dissolved in acetic acid, evidently a territory of partial necrosis, which was attached to the older likewise sharply bounded one."

"A regular seam of fattily changed cells existed on the border of the necrotic material."** "In freshly investigated pieces these were very thick, up to 0.6 *mm.* in breadth, especially on the border toward the living tissue."** "The investigation of the stained preparations showed on the granulation layer (2—3 *mm.*) well developed spindle cells, delicately walled vessels and only very few karyokinetic figures."

In many places there was already visible between the spindle cells fresh intercellular substance. Still, the cells lay very close to the necrotic material. The cell-form, also was much changed. Giant cells were scattered in the tissue lying next the necrotic parts, also mast cells somewhat more abundantly. Leucocytes, especially many nucleated ones, are to be seen in moderate number next to the necrotic tissue, individual ones also within it."

"The living tissue is characterized by complete staining of the nuclei. The necrotic tissue adjoins this with a tolerably sharp boundary line, which is marked by the position of the fatty cells. The necrotic tissue lying next to this region is richly mingled with chromatin masses, with here and there a tolerably well preserved nucleus. Further toward the inner surface the material is quite free from the remains of chromatin. Baccilli occur only sparingly in the necrotic tissue, not in the living tissue, and also not in the giant-cells of the latter. * * * *

"As regards the question whether the bacilli in the pus and the necrotic portions are still virulent, I have inoculated a guinea pig and a rabbit; the latter in the anterior chamber, with portions of the plug removed by the operation. Concerning the result I can, of course, not yet speak." * * *

In conclusion he says: "From the condition of the single excised pieces an unconditional decision cannot be made as to the character of the whole system of pockets of the joint affection. In that sort of affection only a very few bacilli are usually found corresponding to their thoroughly chronic course, while there are tubercles, especially the older ones, which are very poor in bacilli, commonly they are more abundantly present in the granulation layer. Neither tubercles nor bacilli occurred here in the living tissue," and only a few giant-cells.

"In the necrotic tissue only single bacilli were found in the fresh, as well as in the distinctly recognizable necrotic zone, also in the material without nuclei and in the pus of the abscess. Whether a trustworthy conclusion could be formed from the condition of double necrosis as to its regular formation might with reason be doubted, but that it points to a progression of the necrosis produced by the injection seems to me to be reliable."

The many other reports which I have seen from the men who have used the remedy under Koch's direction agree essentially with the above. They seem to demonstrate the following points:

1. The remedy has considerable influence on the bacillus, but there is no proof that its activity is seriously injured. The results of Dr. Isreal's inoculations will be of interest in clearing up this point.

2. In persons with any tuberculous tissue, there always appears a strong constitutional reaction with inflammation in the tuberculus foci. It is of value, then, in the diagnoses of doubtful cases.

3. In cases of superficial tuberculosis and in internal tuberculosis of parts which can be evacuated spontaneously, the diseased tissue is all removed and with it the bacilli.

4. In deep-seated tuberculosis of parts where surgical help is successful in the prompt removal of the diseased tissue after the use of the remedy, great benefit or permanent cure may result.

5. In advanced tuberculosis of the lungs, especially with large dependent cavities, no benefit will result.

6. In such cases and in deep-seated tuberculosis of other parts, where surgical interference is unsuccessful in removing the diseased tissue, the treatment may serve only to disseminate the bacilli and so produce a general instead of a local tuberculosis. In these cases also, septic conditions may further complicate the disease.

Nothing but evil can probably result from the use of the remedy in tuberculosis within the cranium.

Dr. Lester Curtis. (Concluding remarks.) I might add a word as to what this material is. The name lymph is misleading; it is not lymph at all; the description given of it by Koch shows that it is something of an albuminous nature. The Minister of Public Instruction states that when Koch got into difficulty about the production of this material, he

went to Brieger and consulted with him. Brieger, as you probably know, has recently been working to find something that will destroy the poison of diphtheria and has been partially successful. The substance that he found is a new compound that he has named tox-albumen. It is a non-crystallizable substance which coagulates by the addition of acetic acid and loses its activity by heat. This corresponds very closely with some of the properties of the material produced by Koch. Koch's material is organic; if left in its full strength it keeps fairly well, but if diluted with water, will decompose. The two substances seem to resemble one another in their physical and physiological properties. There seems to be reason for believing that Koch's material is a new substance of the same nature as Brieger's tox-albumen.

Dr. W. E. Casselberry. Mr. President: I hesitate to speak on a subject of which we all seem to know so little. I think it has been a matter of extreme regret to all of us that at least the general character of this remedy has not been made known. Even if it was necessary to reserve the method of production as a safeguard during the experimental stage, it can hardly be conceived to be necessary to keep secret the nature of the remedy; it places the profession in a position in which they can scarcely speak of the subject, they do not know what the material is and consequently they are unable to judge of its possible effects. So far as I have been able to judge by following rather closely the reports that have come to us of experiments with it in Berlin, it is seemingly a medicament of great value for lupus, where the lupoid tissue being superficial exfoliation of the necrosed mass can take place readily, and the tissue involved being of comparatively limited extent, the destructive effect does not react injuriously upon the system and often produces beneficial results and sometimes a cure. But with advanced or even moderate pulmonary tuberculosis, if all the tuberculous tissue is rendered necrotic, as stated, such would probably be as detrimental to the patient as the tuberculous matter. I do not think, however, that we have waited long enough, at any rate we have not yet received well authenticated reports of cures of even the incipient stages of tuberculosis, which is all that one can reasonably expect and which we do ardently hope for. When the tuberculous infiltration is limited, or located perhaps only in the apex of one or both lungs, it is possible that the same changes may safely take place as in lupoid tissue of the skin and the further progress of the disease be checked.

Dr. Henry Gradle. Mr. President: Dr. Curtis has covered the ground so well that very litttle remains to be said on the subject, and perhaps my only excuse for rising is to point out that if we follow the latest reports we need not take quite as unpromising and gloomy a view of the prospects as has been expressed by some of the gentlemen. We stand in a singular position which has perhaps never before been realized in medicine; the entire medical world is waiting for further reports on the action of a medicine, the nature of which is wholly unknown. But implicit faith is placed not only in the integrity, but the good judgment of the discoverer. From the speech made by the German Minister of Instruction, it seems that Koch did not intend to refuse the publication of the details of this remedy and only did so because of the urgent request on the part of the government, made for the reason that Koch is not yet in a position to manufacture any large quantity of it, and that the manufacture requires the utmost skill, which can only be learned by practice, and not by mere description. So, as the minister put it in his speech, it is not only a question of protecting humanity from conscienceless speculators, but also to protect against imitators of the lymph who are not in a position to produce it in its exact form. It has been stated that every bottle of lymph is tested upon three successive animals before it is sold, in order to be sure of its accuracy and potency. If we follow the very latest reports we will see that a good many cases treated long enough are on the road to recovery.

We must remember that Koch's first report appeared no longer ago than the thirteenth of last November, and that those who have had an opportunity to test the lymph in Europe can now only refer to four or five weeks' experience—in this country to three weeks' experience at the most—and it is asking a little too much to cure a case of phthisis in two or three weeks. If we can cure it in six or eight weeks at all, there is a grand prospect before us. A number of cases of lupus have already been discharged apparently cured. Of course no one can say that they are absolutely cured—that relapses are not possible—but if they do occur they can be cured with at least much greater security and rapidity than hitherto. So in phthisis, a number of cases have been discharged from European hospitals, to return every two or three weeks to be tested by inoculations, to ascertain whether they harbor germs or not. One of the most gratifying reports I have seen was from the sanitarium of Goerbersdorf, in which director Wolf states that he has experimented upon about seventy patients, and in every one of those who were previously either in a stationary or slightly improved condition, unmistakable improvement was found to follow the using of the lymph, and some were ready to be discharged cured; while in those who were in a progressive condition of the disease, some arrest has at least been observed. In others it is true no benefits had been gained. Incomplete as the reports are, they show that the remedy promises a control over the disease that a few months ago would have been considered fabulous and practically impossible.

Dr. Bayard Holmes. Mr. President: I can only say that I have great hopes that we shall have some demonstration equal to the demonstrations made from Jenner's discovery; and although this is an entirely new field, I hope it will arouse the attention of the profession and the people to the fact that every one of the acute infectious diseases, at least, will follow in the track of small-pox. If the chronic infectious diseases are to be cured by this inoculation of Koch, then every one of the chronic infectious diseases should have a similar form of treatment.

Dr. J. M. Patton. Mr. President: I think perhaps the medical profession, along with the general public, has been expecting entirely too much from this new remedy. In this country it is of more interest in connection with pulmonary trouble than with lupus, for the reason that we see more tuberculosis of the lungs than of the bones or the skin, in which this remedy is said to be most efficacious. In looking forward to relief from pulmonary tuberculosis, it is well for us to remember that not all cases of pulmonary disease are tuberculosis; that we have other

forms of destructive inflammation of the lungs in which the bacillus is not present at all; or only as a secondary infection, and that we cannot judge the character of the process in these cases by such inoculations. For instance, we have fibroid indurations of the lung in which there may be no bacilli, or they may be present only as a secondary matter. Whatever effect the injection of this lymph would have on the bacilli and the tuberculous process present in these cases, it would certainly not affect the morbid process in the lungs. As far as tuberculosis proper is concerned, we have no exact reports in these cases either from Germany or this country. There must be one or two things done in order to get rid of the disease in the pulmonary tissue—either the bacilli must be thrown out or they must be killed, or the conditions necessary for their development must be taken away. According to the discoverer, there is little or no effect upon the bacilli themselves, and as they cannot be thrown out of the lung tissue, the conditions necessary for their active life must be destroyed.

Granting that they are surrounded by walls of necrosed tissue or of active inflammation, their tendency to retain their activity for years, or indefinite periods of time, would render the person liable to reinfection from them at any subsequent time, therefore we cannot say from one month's or one year's experiments on certain cases whether there is actual cure or not. So I think we are expecting too much in too short a time. As regards the remedy, it is a good deal like the chase of the golden fleece, as far as the general practitioner in this country is concerned, because until the quantity becomes greater its restriction to hospital use will probably make it a matter of reading rather than experimentation for some time to come.

Dr. F. C. Greene, in opening the discussion, said: Mr. President, the account Dr. Curtis has given is just as I found it in Berlin. During my short visit there I attended the clinics of von Bergmann, Prof. Leyden and Gearhart; these three men were at that time treating these cases from 8 in the morning until 4 in the afternoon at the different hospitals. The reaction, as I saw it, was very similar to that described by Dr. Curtis. The most interesting cases I saw were those of lupus, where the effect was immediate, and as it was on the surface and could be easily seen, we of course noticed the changes that took place from day to day. The symptoms were the same as have been given by Dr. Curtis, so I will not repeat them. I noticed that the ampitheaters in the hospitals of Berlin, where asepticism is supposed to be of so much importance, are small, illy ventilated and dirty. The catheters and syringes are used from one patient to another without being cleansed or asepticised. The patients are treated, a few remarks made upon them and they are hurried out of the room. They act there as though their ideas were anything but aseptic. The syringe I have in my hand is one I brought with me; it was made by Windla, of Berlin, surgical instrument maker, for Koch. This is asepticised by first filling it with a 10 per cent solution of carbolic acid, then with alcohol and it is ready for use. The method of preparing the fluid, as used by Koch and his assistants, is to take a cubic centimeter of the original fluid and mix it with 10 centigrams of a ½ per cent solution of carbolic acid.

The product in this dilution keeps about ten days and from this they draw their supply for the injections. This little tube is graduated into grams and decagrams, one division is equal to one miligram of the original fluid. There were 2,500 physicians in Berlin on the same errand that took me there, and a great many did not like this syringe; they said it was not convenient and no more aseptic than the ordinary hypodermic syringe, if properly cared for. As to the physiological action of this lymph, I don't think very much is known of it. The theory, as far as Prof. Koch has given it to the world, is that the effect of the injection is to cause a necrotic wall to surround the bacilli, and this wall prevents the migration of the bacilli into healthy tissue. Where the bacilli are confined in this way they are unable to do damage, and where they are located superficially they are easily exfoliated or thrown off. But when confined in the deeper tissues of the lung structure it is somewhat doubtful if the bacilli will die before the patient does; in that position it is impossible for them to be exfoliated, but they claim that as long as the necrotic process is kept up surrounding the bacilli they remain inactive. The poison is very virulent in character and its effects are in some cases fatal, in fact, while I was in Berlin there two cases of death from the remedy, and one case of a child in Von Bergmann's clinic that they were keeping up with stimulants, their only excuse being that the patient was so weak when the remedy was given that the dose was larger than they expected and the child did not rally from reaction. The French are taking a bold stand in this matter; they claim, Pasteur and the French Institute, that the good effects caused by the remedy are owing more to the carbolic acid than to anything else. They also claim that 25 years ago Decloc treated cases of tuberculosis with this remedy and met with as good success, if not better, than Koch is meeting with to day.

Dr. Brandt: I would like to ask Dr. Greene if he knows whether a stimulant or anæsthetic has been used previous to the injection?

Dr. Greene: Not that I know of. The patients are brought in, a few remarks made about them stating what the reaction was, when it came on, and when it subsided, and then they are taken out. The regular treatment is used in all cases of tuberculosis; you might possibly call it a stimulating treatment—a building up treatment is used in conjunction with the remedy, the same as in the ordinary method of treating this disease.

Dr. Gradle spoke of the cases of lupus that were cured: While I was in Berlin, one of the cases reported by Koch as having been cured of lupus was brought to the hospital, having broken out again. Prof. Koch claimed to have cured tuberculosis of the lungs in four to six weeks; certainly during his experimentation he has had sufficient time to demonstrate whether the remedy is infallible, consequently we are somewhat skeptical, with reports so unfavorable as they have been, of the remedy as a curative means.

Dr. Curtis in closing the discussion, said: I did not come here to defend this remedy; I came merely as a reporter. Some things, however, that have been brought out in the discussion need correction. Carbolic acid is not a necessary part of the medicine, it is added only to make it keep. Koch himself recommends that if it is to be used immediately after dilution water only should be added. That would do

away with the point that the benefit is derived from the carbolic acid. The material, whatever it is, certainly produces a very decided constitutional effect and a decided effect on the diseased tissues, as has been demonstrated by the microscope. I have not read anything that would lead one to suppose that this building up of a wall of cicatricial tissue around it had anything to do with the curative action of the medicine. Koch in his paper insists on the necessity of removing the tuberculous tissue from the body as soon as possible, wherever the bacilli are inclosed in a cavity that will not empty itself, it is necessary to open that cavity and take them out. All the reporters, so far as I have seen, agree that if the bacilli are allowed to remain in the body they may be a source of danger, and perhaps put the patient into a worse condition than before the remedy was used. The Minister of Public Instruction says in his speech before the Prussian parliament that he takes the responsibility for not revealing the composition of the remedy, that Koch intended to publish the method of preparing it, but he advised strongly against it. Such advice from a superior officer in Germany amounts to a command. Recent events have seemed to show the judiciousness of the advice.

Southern Surgical and Gynecological Association

Third Annual Meeting, held in Atlanta, Georgia, November 11, 12 and 13, Chicago.

Dr. W. L. Robinson, of Danville, Va., read a paper on "The Treatment of General Septic Peritonitis," in which he called attention to those cases which tended by absence of pain and a seemingly improved condition after chill and fever, to mislead as to the necessity of operating, and instanced two cases of recent date seen in consultation in which septic peritonitis and secondary abscess existed in spite of the seemingly favorable condition of the patient. He says that often there is an utter disproportion between the pathological condition and the amount of pain and tenderness, a condition so often seen in puerperal peritonitis.

He states that traumatic abdominal injuries, appendicitis and plevic inflammations are the chief causes of septic peritonitis, while of course any internal or external influence which produces suppuration may be the indirect cause.

He agrees with Dr. G. Frank Lydston, of Chicago, that in children, falls, blows, etc., are causes generally of peritonitis, and that because of the age of children in directing attention to the seat of injury we often diagnose the disease too late.

Dr. Robinson takes the stand that gonorrhoea is a frequent cause of septic peritonitis and the reason why it did not always produce it was, that it did not invariably invade the uterus, and even when it entered the tubes, the adhesions to the ovary rendered it self-limiting.

He holds that section, irrigation and drainage is the treatment, and that where adhesions are extensive that salines should follow the operation in order that the peristalic action of the bowel would prevent reformation. Cases occur which, when seen by the surgeon, are too prostrated to undergo a complete operation and the proper plan is to rapidly do what one can by section, irrigation and drainage. Dr. Robinson instanced a case of recent date in which the patient was saved when seen only *in extremis*. He urges the surgeon to go prepared to resect, anastomose, etc., as complications may indicate.

Where conditions are diagnosed which will most likely terminate in septic peritonitis, such as recurring appendicitis, that preventive measures should be undertaken; and where great tympanites exists, he would adopt Dr. Davis' mode of opening the bowel and flushing it out with hot water.

Dr. John S. D. Davis, of Birmingham, Alabama, contributed a paper entitled: "The Clinical History of the Episcystic Surgical Fistula, With Cases."

Second Day—Afternoon Session

Dr. W. O. Roberts, of Louisville, read a paper on "Removal of Stone from Female Bladder through the Urethra, with Cases."

This paper was devoted simply to his individual experience in the extraction through the urethra of stone from the bladder of the female. The cases thus treated were six in number; the ages of the patients ranged from 15 to 56 years. Four were married but two only had borne children. The stones were phosphatic in four cases, uric acid in one, and an incrusted fringed body in another. In one, a very hysterical patient, the stone had for its nucleus a piece of soft wood. In one the patient had a vesico vaginal fistula which had been closed by an operation some months prior to the occurrence of the symptoms of stone. In another the bladder had been opened by a surgeon in doing an ovariotomy upon the patient a year before the stone was discovered.

In four of the cases the stones were single, in one there were two, and in one nine. In this case the patient had passed at various times a number of small stones, from two to seven at a given micturition. These stones varied in size from that of a grain of wheat to a grain of coffee. In two years she had collected 184 stones, a number not representing all she had passed.

The extraction was done in every case, under chloroform, the patient being profoundly anæsthetized. The urethral dilatation was begun with forceps, and completed by means of the fingers. The little finger being first introduced, the ring finger next, and finally the index finger. The fingers were well oiled. In Case I. the stone was found to be almost an inch and a half in diameter. In Case II. the stone was found in the urethra, and proved to be a piece of soft wood heavily incrusted with urinary salts. In Case III. the stone was spherical, and had a diameter of about one-half inch. In Case IV. the stone was ovoid, its long diameter being an inch, the shorter three-fourths of an inch. In case V. there were nine stones, the smallest measuring circumferentially two and one-fourth inches; weight eighty-four grains.

Dr. William Perrin Nicholson, of Atlanta, Geergia, presented a paper entitled: "Wet Antiseptic Dressings in Injuries of the Hand."

After dwelling upon the importance of the subject, both from the standpoint of future earning capacity of the patient, and the large amount of financial compensation demanded from corporations, he stated that for seven or eight years past he had looked after the surgery of several railroads and manufacturing establishments, and in that time had been called upon to treat more than three hundred hand injuries, rep-

resenting all grades of injury from slight contusion, to complete destruction of the larger part of the hand. The especial point that was urged in the paper was the doctrine formulated by Verneuill—*never to use a scalpel in a hand injury.* The old teaching, that when a finger was crushed, you should go far enough behind the injury to secure a sound flap and amputate, was pernicious in the extreme, and had cost thousands of fingers that would have been restored to usefulness. Only such parts as were actually destroyed and pulpified should be removed, and all the tissues to come away could be amputated with the scissors. Projecting pieces of bone could be removed with plyers until reduced to the level of the fleshy parts. In compound fractures the parts should be coaptated as well as possible, and the line of separation be determined by nature, and under strict antiseptic dressings. Such a slough was harmless. Another point to which attention was forcibly called was the utilization of blood-clot in filling up ragged injuries, and by its substitution the restoration of lost parts. When a finger was crushed off, the end should be trimmed with scissors, and the clot utilized in building up a tissue over the bone. In reference to dressings, Dr. Nicolson said that he had tried almost all varieties, and had finally obtained the most satisfactory results from keeping the parts constantly bathed in a non-poisonous atiseptic solution.

In dealing with these wounds they were first cleansed as well as possible, and then bathed in a sublimate solution. Over all wounds a piece of aseptic rubber tissue or oiled silk was placed, then iodoform and sublimate gauze, and finally over all a covering of rubber tissue, into which, at some convenient point, a small opening was made. The patient was then given a bottle of antiseptic solution, to be carried in his pocket, if moving about, and intructed to pour, at frequent intervals, enough into this opening to saturate the dressings. He uses almost exclusively listerine, combined with a small amount of carbolic acid, in the porportion of half an ounce of the former and half a drachm of the latter, in a six ounce mixture. If there was much pain a small amount of aqueous extract of opium was added. These dressings were not disturbed until the third day, when they were removed under strict antisepsis, to preserve the integrity of the blood-clot. Wet dressing were substituted at the end of about a week by the ordinary antiseptic dressings, kept moist by external covering of rubber tissues. Should sloughing occur, it is kept wet for a longer time with the antiseptic.

Dr. J. T. Wilson, of Sherman, Texas, read a paper on, "Uterine Moles and Their Treatment."

In the few cases that had come under his observation, they had been more troublesome and elicited more anxiety than most writers indicate they should and the hemorrhages in some of the cases were alarming; then too, there were some points noticed in his cases which he had failed to find described in textbooks.

All authorities seem agreed upon the etiological and pathological view generally taken of it, that it is a blighted or altered conception; the ovum having perished, its coverings or the placenta, if formed when this change takes place, become attached to and continue to receive nourishment through the uterine walls and remains or becomes an organized product until it is thrown off; and this condition is attributed by some to the vitality retained in the villi of the chorion.

He had never met with a case that was lying loose in the uterus, but all were more or less adherent to its walls and most of them to the posterior wall. They had to be taken away piece-meal and the surface well curetted, washed out and carbolic acid or Churchill's iodine applied to the surface.

They all require after-treatment, because all except one case of hydatiform mole had endometris and endocervicitis, two had severe cervical lacerations and erosions; most of them had a greater flow than usual at the subsequent menstrual periods until the inflammatory condition was relieved; in two cases the general health, while not robust was fairly good, the others more or less delicate, none of them in perfect health, none had any history of a cancerous cachexia, nor of syphiltic taint, one was tuberculous. His experience had taught him to believe that if these cases do not receive treatment at a proper time there are two grave dangers to be apprehended, viz.; hemorrhage, which, if not an immediate cause of death, is capable of leading indirectly to that end, and septic poisoning.

In the treatment, if the cervix is sufficiently dilated and hemorrhage troublesome the mass should be promply removed. If this cannot be done., a hot, antiseptic vaginal douche should be given, followed by a careful and efficient tampon, with the internal administration of ergot and anodynes if required, directing quiet, rest and a simple diet. In from twelve to sixteen hours the tampon should be removed and the foreign body extracted as completely as practicable; this will require a good stout pair of forceps. He had used the ordinary dressing forceps, and placental forceps, for the purpose. An excellent instrument in some cases is Emmett's curette forceps. The surface should be well curetted with a wire curette, the uterus thoroughly washed out with hot solution of bichloride of mercury and Squibb's crude carbolic acid of Churchill's tincture of iodine, well applied to the surface. If much bleeding ensues—and this is not usual, the application of persulphate or perchloride of iron gives good results. The patient is put to bed and kept there as long as the indication in each special case may require; she is put upon a tonic treatment and hot vaginal antiseptic washes. In from three to five days the uterus may need curetting again and another intra-uterine douche; then the application of iodine about twice a week, alternated occasionally perhaps with carbolic acid as long as may seem necessary and the cure, if possible, completed of and uterine disease that may exist. The patient's general health is carefully looked after and her mind tranquilized.

Third Day—Morning Session.

Dr. G. Frank Lydston, of Chicago, read a very elaborate and lengthy paper, entitled

A Review of the Treatment of Varicocele, with Cases.

He said in discussing the various merits of operative procedures, it was necessary to take them up in detail. The *raison d'etre* of many specially devised and named operations is apparent only to the operator. For practical purposes the various methods may be divided (1) acupressure; (2) subcutaneous deligation; (3) open deligation; (4) deligation with

resection of veins; (5) deligation with resection of scrotum; (6) resection of the scrotum.

The employment of acupressure, to Dr. Dydston's mind, was an evidence of a lack of faith in modern antisepsis. It reminded him of the Dutchman's method of cutting off his dog's tail, an inch at a time, so that it would not hurt him so much. Gradual obliteration of veins had all the dangers of immediate deligation in a marked degree, and had none of its advantages. The term "acupressure" covered practically all methods of gradual obliteration of the veins of which Davat's operation is an illustration. Subcutaneous deligation is not essentially dangerous in skillful hands. Simple as the operation appears, however, accidents have occurred. The operation is done in the dark, and more tissue is included in the ligature than is necessary. Strangulation of tissue is not conducive of safety. Scrotal hæmatocele, phlebitis, septic infection, thrombosis and embolism are possible. The *vas deferens* has been included in the ligature. He does not condemn the subcutaneous operation, in suitable cases and in skillful hands, but he believes there are better and safer methods on the average. There is little choice between deligation without disturbance of the veins and deligation with resection of the veins, except the remotely greater danger of sepsis in the latter. Gould's method of division by cautery he believes to be the most dangerous operation yet devised. The dangers of the open method are, in a less degree; those of subcutaneous deligation. If open ligation be determined upon, the operation should be done as high up as possible in the straight portion of the veins, and a single ligature applied to the vein.

Deligation with resection of the scrotum he considers to be the ideal operation, in the majority of cases requiring surgical interference. His plan is as follows: An incision is made parallel with the spermatic cord just below the external ring. This incision should be about one inch in length. The cord is hooked out with an aneurism needle, the veins separated and tied, the ligature is cut through and the cord dropped. Sutures and antiseptic dressings complete the operation. The scrotum is now amputated by the improved Henry operation. Dr. Lydston uses decalcified bone drainage tube and juniperized silk ligatures and sutures. Resection of the scrotum he considers the simplest and safest operation for varicoceles of moderate size. In the more marked forms, the affection invariable recurs to a greater or less extent. He does not, therefore, consider the so-called Henry operation a radical cure in the true sense of the word. The author reported a number of cases operated upon by various methods, with the results, and, as far as could be learned, the subsequent history of the patient. The author had noticed hydrocele as a result of subcutaneous deligation in two cases, one operated upon by himself and the other by another surgeon. The doctor reported one very interesting case in which the scrotum was continually bathed in bloody perspiration, and in which the seminal ejaculations were heavily tinged with blood.

Dr. Willis F. Westmoreland, of Atlanta, followed with a paper on "Morbid Reflex Neurosis."

Dr. George A. Baxter, of Chattanooga, read a paper on

SILICATE OF SODA—SOME NEW METHODS OF USE IN SURGERY,

in which he said the jacket of baked silicate of soda, which he would present to the Association, possessed all the qualities to be found in the plaster, firmness and support, and weighs actually one pound and six ounces. It is neater in appearance and finish, can be perforated like leather for ventilation, which plaster cannot. It is even lighter than leather without its costly process of construction, and has the same advantage over the woven-wire jacket with the additional advantages over both these latter and all others of this class, that it can be constructed by any surgeon at any time or in any place. Dr. Baxter suspends his patient and puts roughly a plaster jacket around her, and cut this as soon as it has hardened enough to retain its shape, thereby lessening materially the time of suspension, the most trying ordeal with this or the plaster, and not without its dangers when long continued, bind the cut edges together where it has been cut down directly in front, with cords, and then place a core of paper in the center. This paper core is used for two reasons: (1) to lighten the cast and take as little plaster as possible, and (2) to dry it the more readily by heating the inside. This done, the plaster is poured around the core and inside the cast, which gives him a mould of the body in extension and counter-extension, exact in every respect. Around this is made the silicate jacket after the manner of the plaster roller bandage, weaving one-half inch metal strips in the meshes of the bandage at a distance of four inches apart around the whole cast, an inside lining of a knit shirt having been first placed over the cast. The whole is then placed over a coal oil stove, and allowed to dry out, which it does from one-half to two hours or less, especially if the cast has been previously dried. This process of heating not only dries the silicate, but bakes it as well, and renders it impervious to the action of water or the perspiration, and gives it sufficient strength to allow it being perforated for ventilation. It is now cut from the mould with a straight incision down the center, two pieces of leather, to which button hooks or eyelets have been previously attached, sewed up and down the front on each side, then the whole can be laced up solid or loosened and taken off at will. The necessity of taking off a jacket or leaving it on during the whole course of treatment will, of course, depend upon the character of the disease or injury under treatment.

Dr. Edwin Rickets, of Cincinnati, Ohio, contributed a paper entitled: "Surgery of the Gall-Bladder," in which he said to Langenbach was due the credit of totally extirpating the gall bladder, and to J. Marion Sims we owed a debt of gratitude for establishing the operation of cholecystotomy.

Dr. Rickets reported seven cases of gall stones:

Case I.—Mrs.——, aged 38, married, consulted him in 1880, for a tumor in her right side in the region of the gall-bladder. Said she had passed by the bowel following a severe attack of hepatic colic a number of gall-stones. She was emanciated and suffered from what she claimed was neuralgia of the stomach. She was slightly jaundiced and bowels constipated. Upon examination of the abdomen the tumor was well marked and nodulated above, which was the liver surface smooth. He made the diagnosis of gall-stone,

and urged an operation. The patient's physician, however, urged the expectant plan of treatment, which was accepted by the patient. She then went to the country, and in less than three months had an attack of hepatic colic, followed by peritonitis, dying inside of three days.

Case III.—Ellen ——, colored, aged 30, consulted him for a markedly distended gall-bladder, which made its appearance after a hard day's work over the wash tub. She had been sick for ten days with fever, temperature reaching 103 degrees, rapid pulse, clayish stools, with occasional attacks of hepatic colic, through not severe. He opened the gall-bladder, turning out one pint of fluid which consisted of bile, mucus and pus, stitching the gall-bladder up aginst the peritoneum. After three days catarrhal plugs were washed out of the common duct through the abdominal incision in which had been deposited a glass drainage tube. The fistulous tract is still open, discharging periodically, but with no bad results to the patient.

In Case IV. a diagnosis of cancer of the liver was made by the attending physician. The gall-bladder was opened and the stone turned out, weighed 128 grains, and the common duct was filled with catarrhal deposits.

Case V.—After incising the gall bladdder there escaped first about one drachm of pus, after which Dr. Ricketts turned out 23 stones. A diagnosis of cancer of the liver in this case was made by the attending physicians.

Dr. Hunter P. Cooper, of Atlanta, Ga., reported a case of "Fracture of the Femur Due to Fragility."

Dr. Geo. H. Noble, of Atlanta, followed with an illustrative paper on "Procidentia Uteri."

Third Day—Afternoon Session.

Dr. W. Hampton Caldwell, of Lexington, Kentucky, read a paper on "Rectal Medication," in which he said that several years ago he was convinced of the utility and safety of rectal administration of medicine, and had ever since regarded it as a most important plan of treatment. Since we accept the theory of the local origin or manifestation of the majority of diseases, this idea of rectal administration of medicine, was more readily accepted as scientific in its applications than at any other time heretofore. The rectal suppository. consisting of coco butter, incorporated with the various therapeutical agents affords the most efficient and pleasant mode of administration in our possession. Rectal suppositories satisfy all requirements as a local or constitutional remedy; they are neat, convenient, and in almost every instance preferred by the patient to the administration of the same drug by the mouth. In the administration of anodynes, it is certainly a superior method of administration to all others, as the sensitive stomach is no longer a barrier or excuse in the administration of even the most disagreeable medical agent, for we well know in many instances that this organ is either tolerant to opiates or the patient has an invincible objection to taking them, the impossibilities of the rectal administration being thrown off is one great advantage over all other methoda of administration. The effects of rectal medication embrace a wide range of actions, including anodyne, antiseptic, alterant and astringent. In severe pain they certainly afford the best and safest source by which our patient's suffering can be relieved, as the action upon the rectal surface of a diffusible anodyne is quite rapid, and produces an effect about as soon as when administered by the stomach. In all inflammatory or painful affections of the abdominal or pelvic organs, this plan of administration has succeeded better than all others with the author.

Dr. Thad. A. Reamy, of Cincinnati, Ohio, reported a case in which he removed a stone weighing 365 grains, by vaginal cystotomy, from the bladder of a child six years of age, with injury of the ureter. Operations done for closing the bladder were difficult, but ultimately successful. He exhibited the stone, and made some comments on the case.

He felt after the stone was removed that it would have been better to have made supra-pubic cystotomy. Had he known the size of the stone, he would have probably done that operation. But in view of the fact that it was partly encysted, that the bladder walls were much inflamed and thickened; also the fact that in the child the parietal peritoneum dips much lower down in front of the bladder than in the adult, it became a serious question whether this course would have been better than the one pursued.

It was not clear whether the ureter was damaged in the removal of the stone, or was exposed by the sloughing which occurred much latter on. He was inclined to favor the former view; and that the discharge of urine into the tissues of the bladder wall in the line of suture, was to no small degree responsible for some of the failures in closing the bladder. However, until the last operation the most critical examination failed to discover the ureter.

Though Parvin, Campbell and others had turned an exposed ureter into the bladder, the speaker was not aware that it had heretofore been done in a subject so young. The vagina being so small, rendered the manipulation difficult in the extreme.

Dr. James A. Goggans, of Alexandria City, Alabama, read a paper on "The Surgical Treatment of Empyema."

He said during the last eighteen months he had treated six cases of empyema which developed in the wake of pneumonia, all of which had made perfect recoveries. These patients varied in age from three to thirty-five years.

Surgical treatment was the one which had been the most successfully employed. Spontaneous cures, he said, were rare—so rare that surgical interference was the rule. There were many methods of operating for the removal of pus from the pleural cavity, but they may be classified under two general headings: (1) The closed method, which consists in removing the pus by simple puncture with some kind of trocar or modern aspirator, and allowing the puncture to heal at once. (2) The open method, which consists in making an incision more or less free, with the introduction of some kind of drainage tube to maintain the perfect evacuation of the fluid, and admit of medicated washings, and to promote free ingress and egress of air that has been passed through an antiseptic dressing. The surgical treatment, then, being an absolute necessity, we cannot over-estimate the importance of making the diagnosis certain by resorting to explanatory puncture with the hypodermic syringe. We can assure the patient and friends that no evil results can come from this procedure, and that the

prognosis positively depends upon this means of settling the diagnosis.

OFFICERS FOR 1891.

President—Dr. L. S. McMurtry, Louisville, Ky.

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Place of meeting, Richmond, Virginia, second Tuesday in November, 1891.

Rupture of the Bladder.

G. W. BOWEN, M. D., *American Prac. and News.*)

Jas. McG., sailor, age 37, was committed to the Toledo workhouse, charged with drunkenness and disturbance. Said he had been followed from the saloon by two men who threw him down, one kicking him in the abdomen. When first seen by Dr. B. he was sitting upon his cot in a half doubled up position, his hand pressing his abdomen. He claimed that he could not stand up nor lie down. Pulse full and regular, tongue coated; could not tell when bowels had last moved. Prescribed a cathartic and when next seen said he felt better from the effect of the medicine, had also voided urine at each operation, but still had pain in abdomen. Prescribed quinia with opiates.

Next day found his condition unchanged but the day following he could lie on his back, no pain on pressure although abdomen was distended, pulse feeble and irregular. The following day he grew weaker and death followed, it being five days after the alleged outrage. Twelve hours after death a post-mortem examination was held. On opening the abdomen, the peritoneal cavity contained one gallon of urine. The bladder presented a shrunken appearance and near the base posteriorly was found a rupture one and a half inches in length. The intestines and peritonium presented a healthy appearance, with the exception of a soft spot on the floor of the pelvis, about one inch in diameter.

A negro named Sheffield Gantt, alias Merritt, was killed on the Richmond & Danville track, in the southern part of the city, at Greensboro, N. C., Aug. 2d. He stepped off the main line out of the way of a train on the side track, directly in front of a backing engine. He was knocked down and run over.

His body was cut almost completely in two at the waist, only a shred of muscle holding the two parts together. The wheels of two cars and a tender passed over him, yet, when the train stopped, he told the hands how to take him out. He was laid on a skid and lived and talked calmly rationally of his injuries for an hour. Occasionally he would glance at the parts of his body lying around him. The first of his relatives to reach him was his aged grandmother, who dropped dead after looking upon his injuries.

CORRESPONDENCE.

"Arrest of Evolution versus Maternal Impressions."

Arch Dixon, M. D., Henderson, Ky., writes a long, learned article on the above named subject, in the November number of the WESTERN MEDICAL REPORTER, and then sums up with the following questions (and other logic), which I will briefly answer *seriatim*: "Can the mother's mind produce the diseases of the uterus or its membranes, which result in false bands or placental adhesions, which cause amputations and other deformities?" The mother's mind can so vitiate her blood as to do the above.

"Can such impressions cause the umbilical cord to encircle and amputate a limb, or cause the death of the fœtus?" Her trouble of mind could disturb the child, so as to cause it to kick about anomalously and get a limb entangled in the cord. The fœtus might be made to die by the trouble of mind of mother vitiating her blood, on which it depends.

"Can such impressions reach and act upon the newly impregnated ovum, so as to cause the double cicatricula to approach each other so closely as to result in union and double monsters?" The mind has nothing to do with that. The cicatricula are so near each other originally in an ovum, not one-tenth the size of a mustard seed, that if they were both impregnated at the same time the two spermatozoæ would invariably unite and result in a double monster. Good living and high spirits might have contributed to the ovum being originally developed with two cicatricula.

"Is it possible for maternal influence to destroy or deform one fœtus *in utero*, while another, enclosed in the same membranes, is uninjured?" Yes; two brothers may live in the same house exposed to cholera; one may die and the other live.

"A large per cent of congenital deformities being shown to arise from local and other causes which have no connection with maternal influences, is it probable that at another time exactly the same deformity is produced by maternal impressions?" Yes. There are more ways than one of killing a dog, besides choking him with butter.

"Is it reasonable that an intra-uterine amputation will be caused in one case by an amniotic band, while in another it may be caused by maternal impressions?" Yes; distress of mind of mother might so impair her condition that she failed to develop all the parts of the child.

"When it is remembered that no nervous connection exists between the embryo and the mother; that there is no distinct blood communication; that the mother's mind can have no influence in causing pathological conditions which have been shown to be the cause of the malformation; that during the first week of fœtal life the ovum is surrounded by anatomical conditions precluding maternal influence, whereas it has been shown that the vast majority of malformations have their origin in that period of embryonic life in which the ovum is still homogeneous blastema. When all these facts are considered, can any one believe that the mother's mind can change the conformation of the fœtus *in utero*?" Yes. You might as well deny that the mother developed the child at all, because there is no nervous or vascular connection between it and her. One is no harder to believe than the other.

Hudson, Ill. SILAS HUBBARD, M. D.

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

ACADEMY OF MEDICINE APR 29 1892 LIBRARY

Dr. E. W. Edwards died at Goshen, Ind., on the 14th of January, at the age of 74 years. He was quite a noted physician, but had been unable to attend to business for some time on account of failing health.

The *Clinique*, St. Louis, Mo., comes to us this year in a greatly improved form, and under new management. We extend our congratulations to the editors and publishers of this journal for their success in the past as noted by this change, and will always welcome the *Clinique* as one of the brightest of our exchanges.

Dr. James A. Lydston, late chief of Eye and Ear Department Pension Bureau, Washington, D. C., and Professor of Chemistry in the College of Physicians and Surgeons, Chicago, has removed to Denver, Col., where he will re-enter the practice of his specialty. This change of location has been necessitated by the illness of his wife. We bespeak a bright future for Dr. Lydston in his new home.

On the evening of Jan. 22d, Drs. E. L. Shurly, of Detroit, and Heneage Gibbs, of Ann Arbor University, Mich., appeared before a large number of Chicago physicians, at the Post-Graduate Medical College and discussed their theories and discoveries made in the treatment of tuberculosis.

Dr. Gibbs, being the first speaker of the evening, stated that pulmonary phthisis is the general term used for all diseases of the lungs but that he differed with the majority of physicians, who generally held to the unity theory of tuberculosis, believing that there are two forms of the disease, inflammatory and tuberculous. The inflammatory is of a pneumonic nature, the matter collecting in the lungs forming a clot, and ending in consolidation. The tuberculous condition is a growth, and starts from one or two tubercles. Dr. Gibbs also said if the bacillus is the virus of the disease or the cause, it is not to be noticed in the early stages.

He and Dr. Shurly abandoned the bacterian theory as not being the correct one, and experimented with the belief that the cause of the destruction is due to some morbid chemical formation, and in order to antagonize it, they must discover the desired chemical.

Dr. Shurly then proceeded to explain the experiments they had resorted to, to gain the desired end, working on the theory that the poison generated in the lungs caused the inflammation, and in order to stop this process the tissues must be separated. They used chlorine, chlorine water and finally iodine, then chloride of gold and sodium.

The physicians present were much interested in the description of the experiments carried on by these eminent men, and will look eagerly for good results to follow greater research for the cure of tuberculosis.

Medicine as a Trade.

As we peruse the daily papers and note the avidity with which some of our best men grasp at the Koch method, skin grafting, etc., as levers to pry themselves into notariety, we are inclined to think that after all we may be compelled to throw off our pious airs and advertise every man of us, and at the usual rates. The struggle for supremacy takes one's breath away. After all, wherein lies the difference between the man who pays for a $500 ad. like a good Christian and the professor who parades his wondrous exploits for the edification of gullible and sensation loving reporters. Are we not humbugging ourselves with our ethics? There is one gentleman in Chicago who pays up like a little man, at so much per column, yet he never, no never would advertise. Pah! the bosh that is preached upon ethics makes one sick. The sacred temple is defiled by the very builders, but let no aspiring young graduate venture to follow suit—he would be ostracised as a quack.

The American Electro-Therapeutic Association

Was organized on the 22d of January, 1891, at the Academy of Medicine, No. 17 West 43d St., New York, by the adoption of a constitution and by-laws and the election of the following officers:

President, G. Betton Massey, M. D., Philadelphia.

Vice-Presidents, William James Morton, M. D., and Augustin H. Goelet, M. D., New York.

Secretary, William H. Walling, M. D., Philadelphia.

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The association starts with a strong and vigorous membership, and has every prospect of a most useful and successful career.

The next meeting will be held in Philadelphia in September, of this year.

WM. H. WALLING, M. D., Secretary.
2003 Arch St., Philadelphia, Pa.

Supra-pubic Cystotomy.

The revival of the old supra-pubic operation, which had so long fallen into disuse, has, under antiseptic methods, resulted, in our opinion, in a little too much enthusiam regarding its merits. We must be guided by the same wise conservatism that has been suggested relative to the question of removal of the diseased appendages in the female. We believe that a proper selection of cases is necessary. We do not believe that every case of prostatic disease, of calculus, or of enlarged prostrate, justifies the performance of the supra-pubic operation to the exclusion of everything else. There seems to be a tendency in the direction of routinism in this respect. When a calculus is present in connection with an enlarged prostrate, and the prostrate is very large, particularly if it be suspected that there is hyphertrophy,

especially some form of hypertrophy in which a distinct tumor is present, or in cases in which the bladder is profoundly involved, it is undoubtedly best to perform the supra-pubic operation. In this way we avoid certain dangers which in severe inflammatory conditions of the bladder are incurred by the performance of the perineal section. One of these is the extreme danger when the bladder is in a condition of chronic inflammation and the urine is strongly septic, and of septic absorption from the perineal wound. There is no question but that the perineal wound is dangerous in this respect, and far more so than a wound inflicted by the supra-pubic operation. The facilities for absorption are greater, and the tract over which the urine is allowed to flow is more important. It is desirable to avoid this absorption, and in cases of extreme bladder disease in which the urine is highly septic the supra-pubic operation is the best.

Another consideration—and it is one of the principal dangers we have to contend with in operations upon the male urinary apparatus—is shock. It is not only injurious *per se*, but indirectly, by reflexly suppressing the function of the kidneys. The shock in supra-pubic section is much less than in the perineal operation. Where this consideration is of importance, it is undoubtedly better to perform the supra-pubic section. If there is a large stone, or if there is any portion of the prostrate that is susceptible to surgical measures, the opening of the bladder from above of course facilitates matters. It is a difficult thing to accomplish removal of a portion of the prostrate through a perineal wound. Some surgeons have reported extraordinary cases which have been operated on by electrolysis and by the galvano-cautery. We would rather see the operations than read of them. We would have to see them performed in order to be convinced of their utility.

Briefly, then, in cases in which the urine is highly septic, in the cases in which the kidneys are disturbed, in cases in which it is desirable to avoid shock, and in cases where operation on the prostate is contemplated—*i. e.*, where the removal of any portion of the prostate is deemed advisable, the supra-pubic operapubic operation is undoubtedly the best. When a calculus is small, provided that we decide upon a cutting operation rather than upon litholoplaxy with the bladder in good condition, and when the prostate is not extremely large, if any operation be done in the way of exploration of the bladder, the perineal operation should be preferred. Danger is avoided by the procedure of Reginald Harrison, which consists of the introduction of a rubber tube into the bladder, thus avoiding contact of the septic urine with the tissues; this is a modification of Cock's operation.

When symptoms of serious systemic poisoning exist, the supra-pubic operation should be selected. We mean by this, not symptoms of uræmia, so called, but that peculiar toxæmic state incidental to the absorption of ptomaines, which characterizes many chronic diseases of the urinary organs. This systemic poisoning is noticed in a minor degree even in some cases of relatively slight strictures. We do not think that the supra-pubic operation is any better from the standpoint of drainage than the perineal operation, but where drainage is to be prolonged it is much more convenient in this situation. Again, absorption, as already remarked, during the removal of the septic material by washing of the bladder and during the spontaneous draining away of the urine, is not nearly so apt to occur as when the operation is done in the perineum.

In perineal operations, after the danger of shock has passed away, there is danger of septic infection in direct proportion to the frequency with which the urine is allowed to come in contact with the wound. The same is true of internal cutting operations in stricture. It will be found in many cases that the patient will be pretty comfortable until the first time he urinates, when immediately a chill followed by a fever is set up, and very often goes on to a fatal issue, with all of the symptoms of profound septic poisoning. The tract of the wound in the supra-pubic operation is not so long, relatively speaking; it does not traverse such important structures, nor are these parts so well endowed with sensitive nerves and absorbents as is the case with perineal wounds.

German Authority on American Investigators.*

The many investigations which have from time to time been carried on for the purpose of arriving at some knowledge concerning the diseases of hogs, has, in a measure, come to a standstill, or perhaps more properly speaking, has arrived at a new starting point. Germany has always been partial to the American hog. Whenever the government and its attending political ailments would become for a time docile and for a time run themselves, the courts would amuse themselves with a game of foot-ball with our friendly grunter. In a vain endeavor to keep her citizens at home our hog products were eagerly embraced, but failing in the object desired they were as enthusiastically kicked out. In the controversy which arose between Dr. Billings of the Nebraska Agricultural Experiment Station and Dr. Salmon of the National Bureau of Animal Industry, concerning swine diseases, the interest and the sympathy of German scientists was speedily aroused because of a corresponding feeling on the part of the government concerning the great American hog—the possessor of those diseases. The plain point in controversy was whether there really existed two separate and distinct diseases, one known as hog cholera and the other known as the swine plague, or was there but one, and that one plain and simple hog cholera.

This having been a national question at home, was made a state question abroad, and the latest and probably most interesting contribution (not exactly to what our children call "hog Latin," for the publication is in German) but in any event to hog literature, emanates from the laboratory of the distinguished bacteriologist, Robert Koch, who has recently discovcovered what is believed by many will become a permanent and durable cure for consumption. The exposition is from the hand and head of Dr. P. Frosch, the able assistant of Dr. Koch, to whose thorough investigation was referred the pretensions and contentions of Drs. Billings and Salmon. It will be recalled that Dr. Salmon having alleged the existence of a second swine disease which was denied by Dr. Frank S. Billings, a commission was appointed by the Department in Washington to investigate and report thereon. This commission was said to be of a partizan character appointed in the interests of Dr. Salmon, who, it was said, owing to his proximity to the Goddess of Liberty was possessed of the neces-

sary influence and power to control its composition. Be this as it may, the commission found for Dr. Salmon decided that the hog was naturally heir to, by infection or contagion, two distinct diseases, and that Dr. Billings, in spite of his knowledge to that effect, used improper means which, combined with his want of education and experience, prevented him from discovering the second plague, which to Dr. Salmon and his friends was as plain as the Bartholdi statue.

The unsatisfactory condition in which this report left the subject under consideration—especially the feeling that political influence had been brought to bear to decide a question of immense hygienic importance, more upon the standing of the contenders, than upon the nature of the disease, made the existence of a referee a necessity and, strange to say, these disputants, never having agreed upon anything else, unbeknown to each other turned to Dr. Koch for relief from their dilemma and found it. Cultures were sent by both the doctors to Dr. Koch, and with the many published bulletins, pro and con, were referred to Dr. Frosch, who has just published his conclusions, which seem to be just the reverse of those reached by the commission appointed by our own dear old Bureau of Animal Industry; insomuch so that he says Dr. Billings is right, and says further that Dr. Salmon stocked the cards when he fixed up his commission to go out upon their bacteriological investigations. He declares that the investigations made by Billings were necessary to correct the discrepancies of Dr. Salmon, awards the latter the booby prize and warns him to go and sin no more. He closes his discussion as follows: "As, therefore, the investigations of Billings fill the discrepancies left by Salmon and remove the doubts which were justified in the face of his more or less objectionable method in his studies of the hog cholera germ, so it can definitely be decided that the germ is the cause of the American swine plague."

The results of Dr. Frosch's investigation are:

1. Salmon's bacterium of hog cholera and that of Billings' swine plague are identical.

2. The same is the cause of the American swine plague (called "swine plague" by Billings, "hog cholera" by Salmon); while the proof of an etiological (casual) relation of Salmon's bacterium of swine plague (the second disease) to this pest—especially to the existence of a second plague of like extent—has been sufficiently demonstrated and that Salmon's swine plague bacterium represents an accidental germ in chronic cases of hog cholera for which the independent relation to a second swine plague was not sufficiently supported.

This sweeping indorsement of Dr. Billings we fear will have a tendency to increase the dyspeptic organism of our bacteriological, or rather illogical friend, Dr. Salmon, and as soon as the present Indian difficulties can be settled, the utmost energies of our noble, patriotic and hogological government will be concentrated upon the appointment of another commission, whose duty it shall be to knock Dr. Koch, with his lymph and his germ theories so high that they will be entirely out of fashion when they return to this mundame sphere.

*Ed. in "Western Resources."

A Tribute to Dr. Frank S. Billings.

To Resources:*

I have just seen in *Resources* the announcement concerning the conveyance of Dr. Billings' interest in the laboratory which he established last year in Chicago, to his partner, Mr. George A. Seaverns, and practically his withdrawal from the further study of animal diseases. The Doctor's adherence to the decision will be little short of a calamity to the live stock interests of the country, and it is much to be hoped that the great benefactor of agriculture will reconsider this momentous step.

His success in the search for the etiology of animal diseases has been so great as almost to overtax credence, yet the field was so broad and so entirely unworked, that the much he has done seems no more than a short and straight approach to it.

Ambitious to a degree, entirely ignoring self or comfort, qualified by industrious study and discipline almost unknown to other men, he reaches the bare prime of life with achieved success in science, the tithe of which has immortalized many a searcher. There is a most touching pathos in the fact that lack of means forces him to turn his back on the great temple of light whose door he has just pried ajar.

The nation loses annually, in cash, about thirty million dollars by the diseases of a single branch of live stock, and at least as much more by the diseases of the other branches, all involving the lives of thousands of people and the health of millions. The pathogenic factors of these terrible consequences have remained unknown till this man pointed out some of them and the way to a knowledge of the others; still the culpable parsimony of the world says: stop at the threshold and let humanity continue to suffer. He has worked for humanity reckless of fortune or position, his one beacon has been success in reading the means of universal relief. He has attacked individuals, no matter in what standing, institutions no matter of what repute, and even governments, when he has found them faithless to the trusts they had accepted. This he has done at his own peril because he conceived it to be his duty. This course arrayed against him a powerful opposition under the head of the Bureau of Animal Industry at Washington that did not scruple to carry its vindictive work to the length of interfering with the Doctor's private business. Our stockmen will remember the spectacle made here at our annual meeting last winter of the *Chief's* prostituting the power and weight of the Department of Agriculture to the injury of the Doctor's work on preventive inoculation against hog cholera, not hesitating to insult the intelligence of the meeting by the most trifling pettifoggery, resorting even to naked prevarication, appealing to the avarice of small minds by supposing impossible cases, and figuring from these enormous incomes for very small service. Appealing to the assumed ignorance of the people by denying that hog cholera is preventable by inoculation, although in the same address he pronounced it a *non-recurrent* disease which it cannot be without being thus preventable.

1st. The discovery and accurate description of the germ of hog cholera.

2d. The manufacture of a virus that prevents this plague by inoculation.

*From "*Western Resources.*"

3d. A clear, intelligible differentiation and classification of infectious and contagious diseases.

4th. His work the nature of Southern Cattle Plague and Yellow Fever.

5th. The "Corn Stalk" disease in cattle.

6th. The so-called hydrophobia in cattle.

7th. Contagious Inflammation of the cornea in cattle.

8th. A singular disease of the sexual organs in cows.

He justly claims that first and third are finished—*i. e.*, not subject to improvement. As to the others, he sends them forth in the words of Winters: "Ein Anderer mach's besser." It may have escaped the notice of most people that his advances in his work on animal diseases were so great and sudden that the agricultural press stood incredulous and refused for years to give space in their columns to his statements concerning his progress, and in the majority of cases, even among the most advanced of these, it is scarcely more than twelve months since they acquired a sufficient understanding of the value of this work to enable them to speak with the courage of knowledge. To-day they are unanimous in their expressions of regret at his retirement.

The notorious Swine Plague Commission reported a little over a year ago that Dr. Billings had done nothing and could not, with his imperfect methods; that the Bureau of Animal Industry had done all on hog cholera, and had besides discovered another wide-spread epidemic disease of swine, which was called swine plague, etc. This superior success of the bureau authorities was said to be due to the fact that they worked according to Prof. Koch's methods. Dr. Billings denies the existence of a second plague, and pointed out with great vigor the damage that would follow its announcement in foreign countries. In 1888 he sent Prof. Koch cultures of the swine plague germ as he worked it in the laboratory in Nebraska. Prof. Koch had the entire swine plague matter worked over from end to end, checking Dr. Billings and the Bureau of Animal Industry's with his own from step to step. The journal from his laboratory just out, contains a report of this proof-work. The work of Dr. Billings is confirmed at every point and receives high praise, while the failure of the bureau work is shown to have resulted from impure cultures, and the statement is made that no evidence of a second swine plague is given in the bureau reports or that of the commission, and very imperfect evidence as to hog cholera. It also declares the bureau in error, in pronouncing the disease an enteritis, and confirms Dr. Billings' assertion that it is specifically a septicæmia. Thus, "by the highest authority in the world," the work of the bureau is condemned, and by the same authority is furnished justification for Dr. Billings' "attack on the goverment."

He has declared Texas fever a Septicæmia, and has thus driven the Bureau of Animal Industry to the extreme of calling it a malarial disease, a statement altogether astonishing in view of the deportment of the disease in the field. It is most unfortunate that he cannot have the opportnnity to work this disease out to the end and once more set a limit to the puerilities of the bureau.

The passive, supine tameness of American stockmen surpasses all understanding. We have hog cholera, Texas fever, tuberculosis, anthrax, blackleg, glanders, the corn stalk disease, cattle "hydrophobia," chicken cholera, epidemic abortion in cows, actinomycosis and several other diseases standing as constant menaces to our stock operations, and for the, lack of fewer dollars than the most harmless of these diseases takes away from us every year, we allow the only man who has ever afforded us any relief or promises us any in future to sink out of sight as if he counted for nothing. Can it be possible that we are fated to the commission of so irreparable a blunder? The gods love not ingratitude, but "we know not what we do."

Of all concerned, no one can afford to be so indifferent as the Doctor. The least of the above named works would have given him a permanent place in the history of medicine, all make a monument, magnificent and enduring as time. On its panels he has cut deep the name of his family, and when Nebraska shall have passed out of the knowledge of men, and no remembrance is left of the existence of this nation, the name of the man who spent his life and matchless powers in the service of his race will be known of all and spoken with reverence and love.

We shall rue the day on which we let him go.

STOCK BREEDER.

Topeka, Kan., Dec. 25, 1890.

ABSTRACTS.

COCKLE-BUR IN THE RIGHT BRONCHIAL TUBE.—*Memphis Med. Monthly.* W. A. NEWBORN, M. D.—In October, 1880, a negro boy, æt. 15, by name J. B., was running through some weeds after a companion, when several cockle-burs were thrown into the air and one was drawn into the air passage by a forcible respiration. Coughing followed, with bloody expectoration and pain in the chest, and upon consultation of physician, no relief was obtained.

Eighteen months after I saw the patient; found him in a hectic condition, right lung much affected and profuse night sweats. Supportive remedies were prescribed, but no change took place until about three months later, when, during a violent fit of coughing, the bur was expectorated. It was covered with a muco-purulent substance, almost average size and two-thirds of its sprigs intact. Notwithstanding all efforts, the boy continued to decline and died two months later.

LOOSE BODY REMOVED FROM THE KNEE-JOINT.—*The Lancet.* WM. TIPLADY.—W. B., aged 26, a joiner by trade and a healthy, active man, who was accustomed to spend considerable of his time on his knees mending and building boats, noticed a lump in his right knee-joint, which caused him extreme pain at times. Upon examination, it was found that the body was about the size of a chestnut and movable to any part of the joint. On account of the great danger attending the opening of the knee-joint, it was deemed best to try to fix the body in the upper sac of the synovial cavity, as it would thus be quite harmless and prevent an operation, but all efforts in this direction failed. Soon after, the loose body got between the ends of the bones, causing extreme pain and inability of the joint, but all efforts to dislodge proved unsuccessful. In a few weeks the pain and lameness subsided somewhat, but the body remained in same position for some time, when it again became movable, increased in size and interfered with the patient's walking.

It was now, at the repeated request of the patient, that consent was obtained for operation, which immediately took place.

One grain of cocaine was injected and an incision about two inches long was made down to the synovial membrane, the bleeding points seized, the cavity opened and the loose body, which had been kept in the upper sac of the synovial cavity by finger and thumb of patient, was removed. The wound was brought together by four silver sutures. Cotton wool, saturated with oil of Eucalyptus, was used for dressing and there was no escape of synovia from the joint. Four days after, the sutures were removed, and in seven days the patient was able to walk about. The loose body was found to be entirely bone smooth on upper surface, rough on lower and the size of a large chestnut.

A Renal Calculus with an Unusual Nucleus.—Kendal Franks, M. D. *British Med. Journal.*—Upon being consulted by a young man 22 years of age for sinus in the right loin, just above the crest of the ilium about 4 inches behind the anterior superior spine of the ilium, which was discharging large quantities of pus daily. I was informed that an operation had been performed for stone in bladder but was unsuccessful as no stone had been located. A drainage tube had been inserted and he had remained in the hospital for three months but the sinus had never closed.

He presented the cachetic appearance of one suffering from prolonged suppuration but was a fine looking well built young man.

There was an inflamed swelling in the right groin which at first was thought to be an ordinary bubo but on lying down and pressing slightly with finger the tenseness disappeared and it was evident that it communicated with the suppurating cavity in the loin. Urine healthy, with no deposit.

He at once consented to second operation which was performed by making the usual incision, about five inches in length beginning a little below twelfth rib, external to the erector spinæ muscle, terminating above and behind the anterior superior spine. Dense cicatricial tissue was soon reached, which being dissected through a large cavity filled with pus was situated immediately behind the right kidney and in this cavity the stone was found.

The posterior surface of the kidney appeared healthy but the abscess cavity had burrowed downward and forward and probe could be felt in the swelling in groin. A drainage tube was inserted, the wound well irrigated and the patient made an excellent recovery. The old sinus closed, but it became necessary in about four weeks to make a small opening in groin for pus to escape.

Upon examination of stone it was found to have a needle in center, and at first the supposition was that it had been left during previous operation; but as it was an ordinary sewing needle and one not commonly used by surgeons, this could not be correct. Questioning patient he had no recollection whatever of having in any way introduced a needle into his body, but his sister stated that when five years old he had swallowed a needle and was kept home from school several days in consequence; but as it failed to produce any annoying symptoms nothing was thought of it. This had evidently found its way to the right kidney and becoming incrusted by the deposits of phosphates from the urine, formed the stone.

Accidentally Amputated Finger Restored.—J. M. Anders, M. D., *Medical and Surgical Reporter.*—April 9 was called to see little girl 4 year old whose fore finger had been jammed between two heavy doors, which severed it at a point on the distal side of, and near to the last inter-phalangeal articulation. Upon arrival one hour and ten minutes after accident the bone protruded about one-quarter inch beyond the soft parts, the separated end consisting of soft structures and the nail with root, which had been preserved perfectly. It retained its normal form and was quite cool. I at once decided to make an attempt to restore the dissevered member, and it was placed in warm bichloride solution $^1/_{2000}$ for a few minutes, adjusted carefully to the finger by applying two pieces of adhesive plaster to keep in position, and dressing with iodoform, bichloride gauze and straight splints for whole hand.

At the end of four days the dressing was removed with the exception of plaster which was allowed to remain as there was no pus visible, and the tip looked well. The dressing was re-applied and allowed to remain ten days when upon being removed primary adhesion though feeble, had taken place everywhere, excepting for about one-half of width of finger on its palmar aspect toward inner side, where small amount of pus had collected, preventing union. The fragments gradually became firmly united, although a little pus continued to form for about three weeks, healing taking place by granulation to the depth of not more than one-eighth inch.

The nail continued to grow at its normal rate, and in the most natural direction. There however occurred twice at the end of this time an exfoliation of a dense, almost horny layer of about the thickness of true derm, over that portion of end lying beyond the point corresponding to the seat of abscess. This peeling off gave the finger tip a slightly shrunken appearance, but on the whole the result was highly satisfactory.

Eight Penny Nail in Trachea.—Dr. T. Hawkins, Ness City, Kas., reports a case in recent issue of *Med. World* of above, and states that a little boy three years of age while tossing a nail in the air and catching same in his hands missed once, the nail falling in his mouth and passing into his throat. He immediately began to have fever, coughed a great deal and occasionally would vomit. The parents were urged to have an operation performed to determine the exact position of the nail but would not consent to this, and the child gradually grew worse, dying four months after the accident.

An autopsy was performed and the nail found at the vifercation of the trachea, with its head turned toward the right lung.

Pineapple for Tapeworm. *Medical World.*—Dr. F. H. Lutterloh, of Anthony, N. M., writes us as follows: "In 1875, in the State of Vera Cruz, Mexico, I was called to see a Miss L., about 10 years old, who had passed several segments of tapeworm about six inches in length, some of which I saw. I at once prescribed that she eat half of a large ripe pineapple. She forthwith did so, finding it a most agreeable medicine. In the course of twelve hours she had an evacuation, in which was about six feet of worm, including the head, and thus a final cure was effected, as I knew her intimately for nine years after, and no more tapeworm.

Book Reviews.

"A Kentucky Colonel." By Opie P. Read.

It is seldom that the busy doctor has time for general reading—novels especially are seldom read by the busy doctor. Herein he makes a mistake, as there is nothing more restful and no better educator than a good novel. In these modern days of pruriency tainted romance, it is indeed refreshing to read such a novel as the "Kentucky Colonel." Opie Read is an American writer clear through, and has a naturalness and pathos combined with a quaint and gentle humor that should appeal to the heart of the American reader. He is without question a master of Southern and negro dialect—one too, who never overtreats his theme. His power of description is immense, and the result is as fresh and beautiful as nature herself. In reading the "Kentucky Colonel," we are taken directly into the homes and scenery of Kentucky, and we hear with the author the blue-bird's song, and see the rich tint of the blue grass before our very eyes. It is to be hoped that the book-lover will turn awhile from the feverish passion-pandering and exaggerated romances with which our book-stalls are flooded, and devote a little time to such gems as Opie Reid has placed before us. The book is meeting with phenomenal and well-deserved success, and we trust is the harbinger of more to follow.

"A Treatise on Fractures," by Prof. Armand Despres. Translated by E. P. Hurd, M. D. 112 pp. Detroit, Mich.: George S. Davis, 1890.

The author's ripe experience in the treatment of common fractures is embodied in this volume of Physician's Leisure Library, and is a very acceptable guide to the ordinary practitioner, although not designed to be a complete treatise on the subject. The topics are treated with much independence and originality, his methods characterized by sound judgment and practical common sense, and the utility of a work of this size will be generally recognized.

"How to Preserve Health," by Lewis Barkan, M. D., American News Company, New York. 1890.

For an available hand-book in the sick-room we recommend the above, founded upon recent developments in medical knowledge, and designed to present to the individual the hygiene of the organs, age, occupation, and the dwellings we live in; also the preservation of our own health and that of our offspring.

Whoever complies with the hygienic and dietetic rules laid down, must certainly enjoy better heath.

"Rheumatism and Gout," by F. LeRoy Satterlee, M. D., Ph. D. Detroit; George S. Davis, 1890. Cloth, 50 cents: paper, 25 cents.

This volume of the Physician's Leisure Library is the production of one who possessed a strongly developed rheumatic dyscrasia. The writer states that driven by the stern necessity of an obstinately inherited disease which threatened the early abandonment of his professional career, he carefully studied the uric-acid theory of causation, with the physiological and pathological connection, and was able by persistent adoption of the therapeutic and dietetic measures indicated to completely eradicate every symptom of the trouble in himself.

Coming from so eminent a source the book is especially valuable as presenting an experience covering twenty-five years of research.

"Chronic Urethritis and other Affections of the Genito-Urinary Organs." Three lectures delivered at the Royal College of Surgeons in June, 1889. By Matthew Berkely Hill, M. B. Lon., F. R. C. S., Professor of Clinical Surgery in University College, London, and Surgeon to University College Hospital, etc. With colored plates. 8vo, pp. xiv, 47. London; H. K. Lewis, 1890.

These lectures are a reprint from the *Illustrated Medical News*, and we are glad to see so valuable a contribution to our literature on genito-urinary diseases in so handsome and permanent a form. The author describes the appearance of the healthy urethra, its expansibility, lumen, color, furrows and papillæ, and its glandular supply. Then the morbid changes are taken up, beginning with a simple catarrh and ending in organic stricture, the whole being made very interesting by colored plates from drawings of the appearance of the urethra when viewed in the endoscope. The duration and treatment of contagion in chronic urethritis is made the subject of a lecture, as also the consideration of prostatitis and tubercle of the prostate.

We commend the book to students as especially worthy of their consideration, in the study of the genito-urinary organs.

"A Treatise on Headache and Neuralgia," including Spinal Irritation and a Disquisition on Normal and Morbid Sleep. By J. Leonard Corning, M. D., with an Appendix: "Eye Strain a Cause of Headache." By David Webster, M. D. 8vo, pp. 259. New York: E. B. Treat. 1890.

This (second) edition of Dr. Corning's book has been reissued containing an appendix on the relation of eye strain to headache, contributed by Dr. David Webster, of New York. It being but two years since the appearance of the first edition it certainly shows an appreciation by the medical public of its many practical suggestions.

The author has endeavored to lessen human misery by careful study and in a concise and practical way given the results to the public.

Insomnia receives special attention as being one of the most harassing symptoms of many functional, nervous affections. The book is well illustrated, and no one can read it without getting many valuable therapeutic suggestions.

"Essentials of Gynecology." Arranged in the form of Questions and Answers, prepared especially for Students of Medicine. By Edwin B. Cragin, M. D., Attending Gynecologist to the Roosevelt Hospital, Out-patient Department; Assistant Surgeon to the New York Cancer Hospital, etc. With fifty-eight illustrations. Pp. 192. Philadelphia: W. B. Saunders.

Although extremely condensed this handy little volume is an improvement upon the ordinary student's compends. It is not a compilation from a few well known text-books but a judicious selection from many sources.

The author, himself a practical gynecologist has consulted the student's needs by his brevity and comprehensiveness, describing the steps of an operation in very few words, without sacrificing either clearness or thoroughness. The value of the book is enhanced by the carefully prepared index and table of contents, and is recommended as a good volume to carry in the pocket from which to refresh the memory.

"Essentials of Physiology." By H. A. Hare, B. Sc., M. D. Second edition, thoroughly revised and enlarged.. Philadelphia: W. B. Saunders, 198 pages. Price, $1.

In presenting the second edition of this valuable little compend, Dr. Hare has carefully prepared a series of practical questions and answers in regard to the most important points of physiology and further amplified the usefulness of this little book. As it now appears, the compend cannot fail to merit the appreciation of the close student as the difficult points in the study of the nervous system have been elucidated, and the number of illustrations increased three-fold.

Items of Interest.

An Irish girl by the name of Emily Maud Higgin arrived recently on the White Star Steamer Britanic, tall, well developed, rosy-cheeked, blue-eyed and cherry-lipped, a mass of wavy sea-green hair crowning her stately head.

When she was very young it was of a sulphurous hue. As she was half-way in her teens she thought it would look prettier if it were darker, and to achieve her object she had it cut close. Her hair, however, continued of the same light shade. At the back of her head her parents noticed that when she was standing in certain positions the hair had a greenish tint.

As time rolled on another discovery was made. On a sunny, bright day Miss Higgin's hair was always bright. When it was foggy, frosty or rainy her hair always became darker and greener. When seen under the gas light, the hair is of a nice chestnut.

Father Cahill, of the mission, says that in Ireland there is an old tradition that any one who goes to the lakes of Killarney and stands in a certain position just after midday will have hair of emerald hue. The color is caused by the reflection of the mountains on the lakes. The belief is held by every one there.

The six patients receiving the Koch treatment at St. Luke's Hospital are said to be doing well and show a marked improvement. The physicians in charge think the remedy will prove of great value in lupus, and probably in tubercular diseases of the bones and joints. Everything claimed by Professor Koch has been proved to be true, and as fully one-tenth of all deaths result from tubercular disease of some form, the boon that an effectual remedy would be to humanity can scarcely be reckoned. The three patients in the Policlinic Hospital who are receiving the lymph treatment are said to be doing well. The little boy, who has tubercular disease of the knee-joint, was inoculated some days ago, and is now reported almost well. The lupus case, that of Augusta Hesse, a girl of nineteen, is progressing favorably. J. McMahon, the Californian, who is suffering from phthisis, has been under treatment a week. He has had three injections. The reaction following each was marked. The Policlinic is daily receiving applications for admission from scores of persons suffering from consumption, but there is not yet enough lymph to go around.

A. R. Whitney, of Franklin Grove, Ill., is the oldest man in the State, having been born in Massachusetts, Jan. 21, 1791. He is still in excellent health for a centenarian.

The recent convention of quinine manufacturers neld in London and Paris exerted a marked influence upon the market price of that widely used drug. Formerly, quinine sold in this market at $4 and $5 per ounce. This was when the product from which it was manufactured was procurable only in the forests of South America in its wild state. A firm of New York manufacturers has now taken up the task of reducing the cost of quinine to the minimum. The drug can now be bought in limited quantities at what have heretofore been wholesale rates; that is to say, instead of being obliged to pay 1 cent more per grain, the purchaser can now procure an ounce, or 480 grains troy weight, of the manufactured product of guaranteed quality, at from 25 to 30 cents, according to the character of the package in which it is put upon the market.

"In what class of scents does the odor of sanctity belong, doctor?"

"Innocence," replied the D. D. blandly.—*New York Herald.*

"Did you know," continued the agent for the vermin exterminator in his appeal to the dairyman, "that the bacillus of tuberculosis in large numbers was in every can of milk you send out in your wagons every morning?"

"No! You don't mean it?" earnestly inquired the dairyman.

"True as gospel," solemnly asserted the agent.

The dairyman got up and went to the back door.

"Mary," he called to a buxom girl at the crocks, "Mary, put enough water in that milk to drown every one of them gol darned backsilliuses. I guess I don't want none of your pizen," he said, as he came back, "but you can stay to supper ef you want to.—*Washington Star.*

Little Barbara has a brother, Max, who is her rival as well. The other day she said to her mother:

"Mother, is Max older than I am?"

Her mother said he was.

"Well," she responded in a tone of eminent displeasure and disappointment, "well, that boy beats me in everything, and he has beated me in bornin', too."—*Washington Star.*

All know how disciples of Izak Walton who frequent the same fish pond feel toward a finny old reprobate, wary enough to defy them for a whole season. Several Buffalo doctors felt the same way about an aged Italian who was always requiring a physician's services, but who could never be induced to pay. A brand-new doctor took the patient in charge not long since, although warned that it would be a service of love.

"O, I'll get the money all right," said the young man confidently. And, sure enough, a few days ago he announced with no little pride that he had got the money.

"How in thunder did you do it?" he was asked by a doctor who was less successful.

"Well, you see," was the reply, "I've just sold his skull for $3."

And the best part of this story is that it sticks closer than a brother to the truth.—*Buffalo Express.*

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ORIGINAL ARTICLES.

Rheumatic and Gouty Inflammations of the Testis.

BY G. FRANK LYDSTON, M. D., CHICAGO, ILL.

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[Read before the North Texas Medical Association.]

The occurrence of inflammation of the testicle, independent of gonorrhœal infection, is disputed by most of our prominent authorities upon the pathology of the male genito-urinary apparatus. Some few have recognized the possibility of purely rheumatic inflammation. Van Buren distinctly recognizes this form of affection. In most instances, the practitioner, when he is unable to discover a discharge from the urethra as a probable cause of the testicular inflammation, especially if the patient denies exposure to contagion, is prone to mentally classify the patient as a liar, or else to attribute the disease to some mysterious method of gonorrhœal infection without the intervention of a urethritis. I was myself, during the early years of my practice, inclined to a similar process of reasoning. I have, however, with increasing experience, come to the conclusion that not all patients are deceitful, and that inflammation of the testicle cannot be attributable to venereable infection in the absence of acute or chronic urethritis, indeed, I have begun to believe that many cases in which inflammation of the testicle occurs as a complication of urethritis, the underlying cause is a rheumatic or gouty diathesis. In cases of chronic urethral disease, such as stricture and gleet, the testicle very often becomes inflamed; in the majority of cases, perhaps, this inflammation is due to a direct extension of inflammation from a stricture or to infection by the products of bacterial development at the site of the chronic disease. In some cases, however, I am convinced that the pathological process in the urethra is of secondary importance from an etiological standpoint. In these cases there is a gouty or rheumatic diathesis, the results of which are likely to manifest themselves at any point where irritation exists. The pathological process in the urethra produces a marked irritability of the associated structures, and especially the testicle. Reflex neuroses, resulting from stricture and manifested by pain in bladder, prostate, testicle, and even rectum without actual organic disease of these parts, are by no means rare. Given, therefore, a patient with a rheumatic or gouty diathesis, acute inflammation may set up at any point where glandular, fibrous, serous or synovial structures are the seat of irritation, reflex or direct, it is consequently by no means surprising that such patients when affected by chronic urethral disease should develop an orchitis, an epididymitis, or a cystitis. The abundant nervous supply, extreme sensitiveness, and peculiar fibro-glandular structure of the testicle render it especially susceptible to this form of inflammation, and its susceptibility is unquestionably enhanced by its intimate association with so typical a serous membrane as the tunica vaginalis testis. If the members of this association will but reflect a moment, many of them will doubtless recall many cases in which no other explanation would account for inflammation of the testicle. How frequently we observe cases in which the onset of the inflammation of the testicle is co-incidental with the contraction of a heavy cold, or at least follows exposure to cold and wet. That direct chilling of the testicle may produce acute inflammation of the testicle I believe to be an assured fact. Van Buren cites several cases of this kind. I recall an amusing incident from my early practice, which I think is a fair illustration of this method of contracting a swelled testicle. A patient entered the N. Y. Charity Hospital suffering from a very painful orchitis. There was no urethral discharge, nor had there been; and the urethra, on inspection, was perfectly healthy. After the testicle subsided there was no appearance of discharge, as is nearly always the case in orchitis of gonorrhœal origin. The patient attributed his misfortune to chilling of the testicle, experienced in sitting upon the cold stone steps of a church, at the hour of midnight, while listening to the New Year's chimes. I called the patient's attention to the sacrilege involved in using the steps of a church as a place of assignation, and set him down as unworthy of belief. In the light of my subsequent experience I should accept such a statement. I have seen a goodly number of cases in which I am fully convinced that the trouble was non-venereal in origin and due to diathetic causes superinduced by exposure. It is my opinion that, independently of inflammations due to diathetic causes and rough manipulation of the urethra, epididymitis and orchitis are rare affections. When, however, I have under treatment a gouty or rheumatic patient with a gonorrhœa, I have learned to recognize a special tendency to inflammation of the testicle. As a matter of clinical experience, I have also found that the exhibition of the salicylates, iodide of potassium and colchicum is attended by excellent results in a large proportion of cases of so-called gonorrhœal inflammation of the testicle.

There is nothing more tedious to follow than a recital of cases characterized by a monotonous similarity. I will, therefore, spare you the infliction of a series of cases, but will crave your indulgence of the description of the most typical case in my experience:

DOUBLE RHEUMATIC ORCHITIS. A gentleman of 35 years of age had gonorrhœa six years ago. This lasted some months, and was followed by symptoms of stricture. The stricture was treated and apparently cured, although a slight prostatic irritation with occasional exacerbations incidental to exposure or drinking. There has never been any discharge from the urethra since the original gonorrhœa six years ago. A few days before coming under my observation for testicular trouble, the patient got wet, and in a few hours developed a most terriffic lumbago, which made it difficult for him to get about. On the second day of the lumbago the right testicle began to swell, with considerable shooting pain along the cord, the backache meanwhile subsiding somewhat. On the third day the left testicle became involved, while the right subsided somewhat. He now sent for me. I found the urethra normal—as regards inflammation

and discharge. (I of course did not explore for stricture.) Both testes were enormously swollen, the left being the larger and more painful.

Under tobacco poultices and anodynes the left testicle subsided considerably within twenty-four hours, but just as the patient was congratulating himself on his improvement, the right testicle again became extremely painful and swelled larger than ever. I now put the patient on the salicylates and he began to improve, but throughout the entire period of inflammation the effected organs behaved very strangely.

The enlargement and pain would subside and again increase in both organs alternately within the space of a very few hours. Convalescence was established in ten days and the testes resumed their normal size and contour with surprising rapidity. The patient was now attacked by severe pains of a rheumatic character in the legs which gave him great annoyance for several weeks.

The points of interest in this case are:

1st. Double inflammation of the testes, which is rare, even in gonorrhœal cases.

2nd. The involvent of both the body and epididymis of each testis.

3rd. The delitescence of the inflammation, which so to speak, went back and forth from one testis to the other.

4th. The distinctly rheumatic manifestations preceding and following the double orchitis.

5th. Resistancy to the ordinary measures of treatment and tractability under anti-rheumatic remedies.

Although I did not use the drug in this case, I have observed great benefit in similar cases from the use of salol.

This remedy to be effective must be given freely. It is oftentimes beneficial in urethritis, although its potency in this respect is overrated.

Premature Expulsion of the Ovum and its Sequela.*

By L. P. Walbridge, M. D., Decatur, Ill.

I choose this topic because there is less said about it in our medical journals and receives less discussion in our medical meetings than any topic in medicine and is quite important as any. Probably there are no cases in medicine that give the young practitioner more anxiety than his first case of abortion, and justly should it be so, for the woman's future happiness and well being depend in a great measure upon her attendant, for of all sources of uterine disease none are more prevalent than those derived from abortion. The uterus is a most wonderful part of the female economy. This organ has three entirely distinct and different periods of existence. From birth to puberty this organ is undeveloped and seems to have no great function to perform. At a certain period of life, usually between the age of thirteen and seventeen years, the human female undergoes a remarkable change. There is a marked increase in the body development. The mammary glands increase in size, certain changes take place in the moral as well as the physical attributes of the female. The graafian follicle enlarge and some approach the condition favorable to rupture and the discharge of ova. This condition is puberty, and from this time on to forty-five or fifty years the uterus is an organ of intense activity, and has a marked influence upon the whole being of the woman. From fifty years to the close of life its great work and function are performed. The organ that once had such a great influence upon the woman sinks again into insignificance and becomes atropied. The graafian follicle undergoes change and the discharge of the ova cease. During the active period of existence it is the organ that the charlatan has preyed upon from time immemorial and has filled his purse with fatness because of its great importance in the female economy. The uterus is subject to various distinct influences and one of the most important of these is ovulation. The graafian follicles enlarge and some rupture and the discharge of the ova follow. There is sometimes a sero-mucous discharge preceding the establishment of the menstrual flow for a few months. In some cases after the first discharge of blood the female passes several months without another period, when the second flow takes place, the menses then become regular. In health the flow recurs every twenty-seven or twenty-eight days and may be every thirty days. At this time a graafian follicle ruptures and the ovum is discharged, the uterine membrane becomes congested and swollen, the mucous membrane breaks up, leaving the vessels beneath exposed. The changes are sympathetic with the maturation of a graafian follicle.

But a still more marked influence is brought about by the meeting of the spermatozoa and ovula in some part of the uterine tract; this meeting is most likely to take place in the uterine cavity and near the opening of the fallopian tubes into the uterus, but the spermatozoa may make their way up through the uterus and the fallopian tubes, the ovum becoming impregnated and drop back into the abdominal cavity, or it may occur in the ovary, or the fallopian tubes, or the cervical canal, before the arrival of the ovum in the uterus, the uterine membrane has become prepared to receive it. It has become hypertrophied, vascular and thickened and somewhat thrown into small ridges, the ovum cleaving to one of these small furrows.

What are the changes that now take place in this new comer? First the ovum undergoes segmentation, producing a layer of cells at the periphery. This layer of cells is called the *Blastoderm;* it is from this that the embryo is formed. It is divided into three layers, an outer, the *Epiblast* forming the epidermal structure, brain, spinal cord and organs of special sense. The inner, the *Hypoblast*, forming the epithelial lining of the alimentary canal and its glands, a middle, the *Mesoblast*, forming the muscles, bones, blood vessels and connective tissue. The embryo receives its nourishment from the mucous membrane of the uterus; the nutriment material of the mother is taken into the embryo, and not only nutriment, but also poison. Thus the embryo may be fatally affected by the hypodermic of morphine and many active drugs. The ovum may become impregnated and conception not take place, if the same act takes place in the female. The ovum will become fixed and conception follows. Then the whole woman will begin to change, a change is brought about in the nervous system and blood, likes and dislikes change. The uterus begins to grow, the mucous membrane undergoes change, becomes thickened, forming the decidua, and that portion where the ovum is attached, the decidua sero-

* Read before the District Medical Society of Central Illinois 1891.

tina, while that portion growing upward around the ovum forms the decidua reflex. In a little while the chorion and ammion are formed, the former is the outer, and the latter the inner membranes investing the embryo. They are formed by folds which rise up on all sides of the embryo and meet above, inclosing the embryo in a double walled sac. The chorion attaches itself to the uterus by little rootlets which extend into the uterine glands and becomes very vascular, while the Amnion is merely a membrane secreting a clear fluid known as the liquor amnii. Then the allantais is formed from the fœtal body (posterior extremity of the intestines); after a while the allantais undergoes atrophy, except a part that sends its rootlets into the chorion, and the two dipping into the mucous membrane of the uterus form the permanent chorion. The vascular villi of the permanent chorion dip into the furrows of the decidua during the first two months, then the chorionic villi lose their vascularity and become atrophied. The villi, however, in contact with the decidua serotina (that portion to which the ovum is attached) undergoes great increase of size and vascularity, and form the fœtal part of the placenta. At the same time a similar increase in size and vascularity takes place in the decidua serotina forming the maternal part of the placenta. In the decidua serotina are found spaces into which blood is poured from the uterine arteries; from the spaces the blood is conveyed to the various sinuses in the muscular coats of the uterus and then to the veins outside the uterus. At this time the embryo receives its nourishment from the placenta. We have seen that at the end of the two months the placenta begins to form, at about three to three and a half months, it is the all-important element as regards abortion; from this vascular substance and its management the prognosis in abortion rests. Abortion is defined as the premature casting off of the product of conception before the twentieth day as *ovula*, before the fourth month as *embryonic*, and after the fourth month as *fœtal*. The more common term for the premature casting off of the product of conception after the third month and before the seventh is called miscarriage, and after the seventh is called premature delivery.

The Pathology of Abortion. Several things may take place. Hæmorrhage from any cause is likely to bring on an abortion. If the hæmorrhage is slight the pregnancy may go to full time, but if profuse and long continued, the ovum will be expelled. In some cases the dead embryo is retained for weeks, months, or years it may be. The embyro becomes shrivelled from pressure of extravasated blood between the membranes, and when expelled consists of embryonic membranes with layers of organized blood clot, and is called a fleshy mole. Or it may remain for years and undergo calcareous degeneration. Part of the embryonic shell may be expelled, as the embryo alone or with the Chorion and Ammion, while the decidua serotina and decidua reflex are left behind in the uterine cavity. A few days after this incomplete abortion takes place, you are summoned, and on your arrival you find considerable hæmorrhage and some elevation of temperature with a pulse quite rapid, 100, with the thermometer registering at 101°. This will tell you that there still remains behind in the uterus some part of the embryonic ball. The remaining part may become absorbed, but is chancing the woman to septic infection and the long list of resulting derangements. Abortion will most invariably take place during the monthly period and more commonly during early months.

The Causes of Abortion. It may be safely said that anything causing the death of the fœtus will cause an abortion. There are three classes that all the causes may come from. *First*, pathological changes affecting the mother, taking place in the blood and nervous system. *Second*, changes taking place in the fœtus. And, *third*, morbid conditions affecting the uterus. Of those causes or pathological changes in the mother, we will first speak of those that are derived from the blood. It has been stated that carbonic oxide gas will destroy the fœtus, as was proven by a number of Arab women being driven into a cave by French soldiers and were kept there for some days, and on their release a number were found to have aborted, the poison acting on the blood of the mother, robbing it of its oxygen and causing the death of the fœtus by asphyxia. Also the nervous shock to the mother might have had something to do with the abortion. Other poisons, as the exanthematous eruptions, small-pox, scarlatina and measles, also severe cases of anæmia, particularly if the anæmia was long continued before the conception took place; poor health from any cause, septicæma affecting the blood, or severe cases of malarial poisoning. Corpulent women are more liable to abort than those of less robust make-up; probably the blood in the corpulent woman is deficient in quality to sustain the fœtus. Severe cases of bleeding or hemorrhage from any cause is likely to bring on an abortion. The nervous causes are many. Some women of a highly nervous organization are most liable to abort on the most trivial cause, as a reflex from fright; or severe injury, reflex from sucking the breast, or from worms in the intestines. Chorea acting as a shock to the nervous centers, also tetanus acting likewise, and many drugs such as ergot acting on the muscular fibers of the uterus, causing contractions, and cotton root and aloes causing uterine congestion.

But of all drugs that is the most damaging and followed by the list of derangements, I may mention the *oil of tansy*. Some think quinine has considerable influence in producing abortion, but it is most likely that when it is used in such large doses that malaria is present, and the malaria causes the abortion rather than the quinine. The fœtal causes have a great influence on repeated abortions, or habitual abortions; when we can find no other causes originating in the mother we will look to the fœtus. Syphilis is the main factor in causing the death of the fœtus and repeated abortions; it may cause atheromatous or fatty degeneration and become transformed into a mole and degeneration of the placenta may take place, destroying the circulation of blood through that organ, thus affecting the fœtus by asphyxia or by the poison of syphilis; or the father may be too young or too old, or debilitated by disease, the spermotozôa not containing enough of its vital principle to exist.

Of the uterine causes, which are prominent factors in habitual abortion, probably the most prominent are retroversion and retroflection of the uterus. Abortion most always occurs by the second or third month, if the uterus be flexed the cavity is lessened in size. The growth of the placenta begins to grow, and if the uterus is hypersensitive from congestion and the formation of the placenta presses on the sensitive nerves,

most probably the uterus will relieve itself of its contents. An insufficient development of the mucous membrane exercises an injurious influence upon the development of the ovum by giving rise to a small placenta, the weight of the ovum drags it downward and becomes a long pedicle resembling a polypus. Fibroids and any neoplasm are a frequent cause. Laceration of the cervix is a prominent cause, keeping the uterus in an irritable condition. Hypertrophy of the mucous membrane, the result of endometritis, may lead to abortion, causing disease of the placenta, and thus affecting the fœtus. Hyperæmia of the uterus brought about in any way, as by drugs or inflammation, will predispose to abortion. Blows or falls may cause nerve shock enough to separate the membranes and cause expulsion of the ovum. Old peritoneal adhesions may prevent expansion of the uterus and thus interfere with the development of the embryo or old cases of pelvic cellulitis may do likewise. Some women even use the sound or instruments of various sizes and shapes as slate pencils, pieces of sticks, knitting needles and lead pencils. On the discussion of this paper at the meeting of the District Medical Society of Central Ill., Dr. E. J. Brown, of Decatur, Ill., presented a lead pencil with a rubber on one end that he had taken from a young servant girl that had introduced it into the uterus at 8 o'clock p. m. About three o'clock in the morning he was summoned and found considerale hæmorrhage, the patient suffering intense pelvic pain ; in a little while the embryo and membranes came away. Prof. Thomas relates a case where a woman took an iron umbrella rib and tried to introduce it into the uterus, it slipped from the hand and at the autopsy it was found that the umbrella rib had passed to the right of the cervix and passed through the vaginal wall and upward through the abdominal cavity, scraped the surface of the liver, passed through the diaphragm and penetrated the right lung to the extent of two and one-half inches and surrounded by an abscess. This will all teach us that a woman pregnant will run all the chances for being a cripple during life, or even death, not only through shame, but wives that could well raise a family will go crippled during the rest of their days rather than to endure pain for a few hours. This is what I believe is breaking down more women than any natural complaint that can come to them, and they all wonder what is the matter. They have done it themselves by simply bringing an abortion. I think it is the greatest evil to our women, and more frequent than we have any idea of.

The Symptoms of Abortion are of two kinds. First of these is hæmorrhage. The second is pain. We may have the third as vomiting. During the first few weeks up to the seventh, the ovum may pass with the menstruation and not be of much notice. But most always we will have premonitory signs as a sense of fatness and a sense of weight in the pelvis. The hæmorrhage, most always slight, may be periodical, and that may be all and the woman go on to full term, but generally the hæmorrhage becomes more severe, and there may be only one severe hæmorrhage. Then we will have sacral pains with bearing down quite severe. Then the woman gets sick at the stomach and may vomit from reflex nervous disturbance. The os acted upon by two forces begins to dilate. First of these is the plug-like action of the embryonic ball. The second is the influence of the nervous system on the muscular fibers of the uterus. This may last for hours and even days. The membranes begin to detach themselves, the hæmorrage becomes more severe, sometimes to a fatal degree. The uterus goes on forcing down its contents and soon the uterine contents fill up the cervical canal, very rarely the plug contains all the embryonic ball. At this stage of the abortion, though the hæmorrage be severe, do not interfere by trying to remove the plug, for if you do so you are liable to leave some of the membranes behind. If the canal dilates so all the embryonic ball comes away, there will probably be no further trouble. This is all well for it is a physical process; the physician should act as a guard and not interfere unless the hæmorrhage be so severe as to threaten the patient's life. Be ready to act when any of the symptoms point unfavorable. If the canal be well opened you can use ergot.

Incomplete Abortion.—If you are called to see a woman and she has hæmorrhage every few days or weeks, with a sense of bearing down pains and that she has had an abortion some time before, and even if there is no history of an abortion, it is pretty good evidence that some of the membranes are left behind and they become loosened and leave raw, bleeding surfaces, and during one of these hæmorrhages the remaining part of the embryo may be expelled. I believe that a great many cases of metrorrhagia and of repeated hæmorrhages is the result of a previous abortion, and most probably secret abortions. Of course, there are many causes for metrorrhagia and repeated hæmorrhages, but I think that in a great majority of cases tumors and neoplasms of all kinds can be excluded. In some cases the symptoms are ushered in by a chill, there may be two or three chills, a few hours before the hæmorrhage takes place, and is a good sign that the membranes are becoming separated, then the temperature may rise a little. Sometimes bad results follow from detained portions of the embryonic ball, as septic poisoning with continuous fever, and the fever ceases with the discharge of the membranes. I have known a slight rise of temperature to continue for three months with hæmorrhages, the woman becoming cachectic and anæmic, it seemed that she was fast developing phthisis, and on removal of the retained placenta or membranes she got well. The fact was, she was poisoned by septic infection.

The duration of the abortion varies. It may last but a few minutes, all the embryonic ball coming away and the abortion completed, or it may be in progress for several hours and then be completed, or it may last for days or even months, parts of the embryo coming away with each hæmorrhage; and what does not come away becomes absorbed, and the symptoms of septic poisoning following. But generally if the hæmorrhage be severe, it will last but a few hours. A great deal has been said on the effects of the mother upon the fœtus *in utero*, but it is pretty safe to say that the fœtus in utero cannot be effected by the mother. Prof. Virchow, the great pathologist, has not been able to find any distinct nerves between the fœtus and mother. No doubt malformations can take place *in utero* without the mother being affected.

What is the frequency of abortion? This is something we do not know. It is undoubtedly more frequent than we know of. It is so often kept a secret even when there is no criminality connected with it. It is exceptional to find a woman who has borne

several children and never had an abortion. Criminal abortion is so common by charlatans, midwives and a great many that call themselves physicians, that it is impossible to get the correct statement; for by these, armies are in this way brought to non-existence, and thousands of women are crippled during life. Hegar reckons one abortion to every eight or ten full time deliveries. If this be correct it would seem to show that the mortality in abortion is as great as puerperal fever and many septic diseases.

What are the sequelæ of abortion? Under this head could be enumerated nearly all of the derangements that come to the physician or gynæcologist for treatment. *Abortion.* That word can be read on the face of nearly every woman who comes to us for treatment. It seems to me that we don't cry down this evil enough. Its followers are hæmorrhage, septicæmia, pelvic peritonitis, pelvic cellulitis, suppurative arthritis and pelvic abscess, embolism, air in veins, tetanus uterine hydatids, uterine moles and melancholia; also anæmia and phthisis in some cases. Hæmorrhage is the great danger in abortion. If the woman be two and a half or three and a half months pregnant there is more danger of some hæmorrhage than in the earlier weeks, for the placenta at this time plays the important part; as it is torn away at this time it leaves a raw bleeding surface and the surface being larger than in earlier weeks, the hæmorrhage becomes more severe, even to such a degree as to endanger the life of the woman; or parts be left behind and hæmorrhage occurs from time to time till the woman becomes anæmic and very weak and suffers from septic poisoning. Septicæmia, peritonitis and cellulitis, from criminal abortions, either from drugs or the use of the sound, are frequent.

A peritonitis and cellulitis may result from an injury by the hand of the examiner by injuring some of the parts, but it is most likely to follow from septic poisoning from retained parts of the membranes or from the hand of the examiner. You will find pain and tenderness over abdomen, with a pulse of a hundred and twenty and a temperature of one hundred and two, and may have vomiting. On examination, you will find considerable heat and tenderness over either side of the uterus. Suppurative arthritis sometimes follows, the wrists, elbows and ankles become enlarged and painful and may suppurate from septic poisoning. Cellulitis is quite frequent to follow with abscess, which will discharge itself. On examination, there will be found on the floor of the pelvis and in the broad ligaments, hardness and tenderness and a fluctuating sac. This will tell you that there is an abscess. The woman may not be well for weeks or months, and may be years. She will complain of pain and bearing down when she is on her feet too long. Embolism may occur; the woman may become hemiplegic. In criminal abortions from severe injury, air may enter the veins; when it enters the large sinuses a fatal result may follow. Tetanus may result from septic infection and affect the nerve centers.

Uterine Hydatids. This condition is the result of cystic degeneration of the remaining parts of the chorion. This is quite common. The uterus develops more rapidly than a normal pregnancy, and may become as large as a fœtus at full term. It is generally thrown off by the sixth or seventh month. The signs are pain in the back, with fast development of the uterus, with frequent discharges of a clear fluid or blood; with parts of the hydatid coming away. Palpation reveals a doughy feel over abdomen, with no part of the fœtus to be felt. Auscultation reveals no sound of the fœtal heart.

Melancholy may follow in anæmic women. Also hysteria, I have known to follow, especially in women that have become somewhat reduced from having poor health, and alternate from a melancholic condition to a hysterical condition.

Uterine Moles. In some cases the retention of the ovum takes place from extravasated blood between the membranes, as the vera reflex or the vera and chorion, causing pressure on the embryo, and it becomes compressed and shriveled and covered with layers of organized blood. They seldom become larger than a good sized apple, and are most always thrown off by the third or fourth month. There are cases where they undergo calcareous degeneration and remain for years. Sometimes twin conception takes place and the woman has an abortion, and when the next month comes she does not menstruate, and so on, month after month, the fact is, she has thrown off one ovum and the other went to full term.

The Diagnosis. The diagnosis is based upon the presence of hæmorrhage and pain in back, and a bearing down sensation, with dilatation of the cervix and descent of the ovum, so that it can be felt through the os. Then the diagnosis is complete. A polypus and many neoplasms might be mistaken for the ovum, but if the woman had always been regular in her menstruation and had at once ceased, it is very probable that she is pregnant and abortion is taking place. If you can see your patient early enough you can break up the clots under water and look for floating membranes. Of course we can't always do this, but the woman can tell us if the clots have come away and other signs are present. Then our judgment must convince us what we are dealing with.

The Prognosis.—The prognosis of abortion is based on several conditions and circumstances, but it is safe to say that all cases of a more natural kind, not complicated with any morbid condition and under the care of a competent medical guidance, are devoid of danger. If we could enter the lying-in chamber of the charlatan and the incompetent midwife and be stifled with the stench and hear the groans of agony, the haggard countenance, the fever, the disturbed abdomen, the poisoned instruments loaded with infectious matter, all of this and a great deal more, we would say that abortion is grave, and if we could know all, this happens every day. As to perfect cure, some women never do get well. They will have pelvic pains when in the upright position too long, be troubled with indigestion and anæmia, and wonder what can be the matter; will go from physician to phyician for help; that abortion done it all. Leucorrhœa and endometritis and old adhesions from pelvic and uterine inflammation follow. So much could be said on the results of abortions; pages could be written on the subject of what an immense harm it is doing our women. Look at women that have raised eight and ten children and never complain of pelvic pain and were never treated for that disease called womb trouble, but the woman that has had one abortion will affect her more for her sin than to have many children in the natural way. To say anything more will make this paper too long, so we will come to the treatment of this unfortunate affection.

THE TREATMENT.—The treatment of abortion may well be divided into three periods. First is prophylaxis, second is threatened, and third is inevitable. Under the first head comes those cases that form the habit to abort, as may occur in some women who abort for the first time from fright or an injury, and it seems to have gotten the nervous system in a condition to repeat itself on other similar occasions. Probably the foremost cause in repeated abortions is syphilis in either the mother or father. In these cases the mercurial treatment has proven a specific, destroying the habit in a few months. The second great factor in producing the habit to abort is antiflexion and retroflexion of the uterus. Among local conditions amenable to treatment are endometritis with perimetritis. In retroflexion and retroversion or any displacement of that organ the best results follow the replacement of that organ and proper use of a pessary, but the pessary should be watched, for if it causes an irritable condition of the uterus it should be removed, or it might in itself produce an abortion. But after the third month it should be removed, for the uterus begins to rise in the abdomen and needs no support. In malignant tumors little can be done by treatment. In certain diseases of the placenta affecting the respiratory function, the chlorate of potassium in 20 gr. doses, three or four times a day, may do good by increasing the oxygen in the blood and thus averting the death of the fœtus. In those cases in which abortion results from an irritable nervous system, the woman should be kept as quiet as possible during her monthly sickness, and the fl. extract of viburnum prunifolium in doses of one teaspoonful every four hours has proven very useful, and at the monthly periods when the flow is exsessive it is of considerable value. I have seen marked results follow the use of bromide of potassium and chloral hydrate, 20 grs. of the former and 10 grs. of the latter, repeated every hour in plenty of water until it produces sleep, which generally follows after the second dose. It produces a sedative effect upon the nervous system that no other combination does. After the fourth month the danger of the habit to abort rapidly diminishes.

The treatment of threatened abortion is preventive. Arrest of the ovum may take place if it is not dead. In every case of threatened abortion the woman should at once be put to bed and perfect quiet be enforced. If pain comes on, located in the back, it is a good warning, the woman should be given opium in one of its forms; a good method is to give a hypodermic of morphine sulph. enough to quiet the woman ¼ gr. guarded by atropia, the tablets in use are the best combination to use. Or in place, the compound solution of opium in 30 drop doses every one, two or three hours guarded by the pain or hæmorrhage, or the bromide and chloral can be used. It is a good rule to keep the woman in bed for some days after all signs of the abortion have disappeared.

If the woman goes on having pains and hæmorrhage, and our preventive measures fail to check the progress of the ovum, we will have to then deal with the expulsion of the ovum and membranes, and this will take us to deal with the

TREATMENT OF INEVITABLE ABORTION.—When the external os becomes dilated to such a degree that you can pass your finger to the extent of half an inch and easily dilatable, it is useless to try to arrest it when the hæmorrhage is severe and clots come away—abortion is inevitable. Antisepsis is a thing of more importance in cases of inevitable abortion than in labors at full time. The *modus operandi* is less physiological, the uterine membrane becomes as a piece of raw flesh when, if a piece of membrane or placenta is left behind, it becomes the best *nidus* for bacteria. The physician should become aseptic, the nails perfectly clean, for by these germ carriers many a woman has been infected and a long siege of septic poisoning and peritonitis has followed. The nurse should become perfectly clean, the hands washed and bathed in an antiseptic solution. You should not attend a woman after seeng a case of puerperal fever, or any of the eruptive diseases. The vulva should be bathed in a 5 per cent. solution of bichloride of mercury, one to two thousand. It is better for the woman to use a chamber, for septicæmia has followed the use of water closets. Suppose the abortion is progressing and the woman is having a profuse hæmorrhage, and you find the os not dilated, what are we to do? For at this time all your tact is needed; in the tampon you will find a specific; a good one is made by small pieces of cotton as large as a silver dollar and soaked in the 5 per cent solution of carbolic acid. There are no speculum so admirably adopted for this work as the Sims, you can place your tampon back as far as necessary. The steps to follow is, first soak the pieces of cotton in the solution of carbolic acid, it may be difficult to use the speculum if the woman is on the bed; if so, place her on the table; squeeze out the pieces of cotton, place one after another in the posterior cul de sac, until it is filled out even with the external os. Then tampon the anterior cul de sac in the same way after it is even with the os, then tampon over it, fill the vagina and if necessary put on a T bandage. This will stop the hæmorrhage and aid the os to dilate.

You can now safely leave your patient, and when you return in a few hours you may find the embryonic ball pressing against the tampon. You can generally tell this, for the woman will say that something has come away and the bearing down pains cease. It may be that you will have to renew the tampon in twenty-four hours; if so, thoroughly wash out the vagina with the carbolic acid or bichloride solution and replace as before, or you can use a roller bandage or pieces of cotton tied into a kite tail for a tampon. It may be that parts of the membrane remain in the uterus and hæmorrhage occurs from time to time. Place the woman on a table, probably an anæsthetic should be given, use the Sims speculum, and if the os is not dilated use Goodell's dilator and gradually dilate till you can pass your finger, which you can do if the pregnancy is two and one-half or three months advanced. Push your finger gradually, not using much force, till you enter the cavity, sweep your finger around the uterus and withdraw it. By this you will most likely loosen all membranes attached to the uterus, and what does not come away with the finger will come away with with the discharge, and same may be absorbed. In early weeks, if you cannot pass your finger use the dilator and curette and scrape the uterine cavity. The dilator is better than sponge tents, for they may infect the woman. The finger is better than the curette or any instrument, for you can feel what you are doing, and with any instrument in the hands of an inexperienced person is liable to do

more harm than good by injuring some part of the uterine tract and setting up a peritonitis or a peri-uterine inflammation. After the uterus is cleaned out wash it out with the antiseptic solution of carbolic acid. Peri-uterine inflammation follows from septic infection with tenderness over abdomen and pain in pelvis with a continuous fever, and on examination you will find tenderness on one or both sides of the uterus with considerable heat, and in broad ligaments you may find a yielding sac which gives a sense of fluctuation. This is an abscess. Use hot water injections three times a day and most likely the abscess will discharge itself through the vagina. Give quinine in good sized doses, for of all germicides quinine is the best, and if pain and inflammation ensue, use opium enough to allay all pain.

The treatment of the sequela of abortion cannot be dealt with here, for the range is too great to put into this paper; it covers nearly all that our works on gynæcology treat.

It might be well to mention some of the modes and causes of producing artificial abortion. The time will come when every one of us will be compelled to do this to save the life of the woman. It is better and safer for you to always have consultation. The indications are pelvic contractions. Tumors, some cases of excessive vomiting, chorea, convulsions, nephritis, disease of the heart, placenta previa. The various methods used for producing abortion are, first, an elastic bougie may be inserted between the membranes and left in position until labor sets in. The bougie should be made aseptic before using. Second, vaginal douches of hot or cold water, three or four times a day, will bring on contractions of the uterus. Third, dilation by tents, but is more liable to set up septic trouble. Fourth, a good method is to use a vaginal injection of warm water and follow it with a solid bougie; labor will generally be excited in 24 to 36 hours. Sixth, a new and safe method is as follows: Introduce a bougie two-fifths of an inch thick, pushed upward into the uterus to the extent of two inches, after two hours replace it by one slightly thicker, and after two hours replace, the third a little thicker than the second is left in position until uterine contractions are set up.

Prof. Thomas speaks in the highest terms of the following: His plan is to cleanse the vagina thoroughly with bichloride $^1/_{3000}$ and fill the vagina with the solution. By this method all parts are kept in an antiseptic state. Catch the cervix with a tenaculum and draw it down with a small divulsor, stretch the cervical canal by gradual force; next introduce a glass plug which is of various sizes; having placed it well up in the canal, tampon the vagina with iodoform gauze, in twelve or thirty-six hours the abortion is completed. If necessary, in a few hours you can remove the plug and replace it by one a little larger. The plug is one and one-half inches long, and has a broad projection to keep it from slipping into the uterus. He says he has never had any bad results from this procedure.

The Prognosis in Artificial Abortion. If under suitable conditions and the strictest scientific resources, it is not bad. The great number that die from abortion are under the care of charlatans or incompetent midwives; little they know of the results, the anatomy, septic poisoning and antiseptic medicine.

Heredity.

A Discussion of General Principles.

By Dr. Frank S. Billings.

Heredity! What a subject! To do it justice would require a book. To attempt that task is not my intent, and probably beyond my ability. All that I shall endeavor will be to introduce to your attention in a very cursory way, a few of the most essential factors in the phenomenology of heredity.

Heredity is the history of life, not only in its highest forms or species, but in the lowest as well, from the one-celled monad to the complex organism of the highest mammalia. Running through this long range of zoological development, we have one common law on which the continuance of species depends. That law is that "Like begets like." We may be very sure that this far-reaching fact impressed itself upon the mind of man at a very early stage in his historical development. The crudest and most untutored savage must have noted the fact that in nature some peculiar cause was at work which created all living things after their kind, or, as the Biblical writer puts it: "And God said, let the earth bring forth the living creature after his kind, the cattle and the creeping things, and the beast of the earth after his kind; and God made the beast of the earth after his kind, and everything that creepeth after his kind."

What wonderful cause for reflection to both the tutored and the untutored mind there is in this profound law, "that like begets like;" but how much more so to the scientifically drilled intellect capable of appreciating in its microscopic representations than to one who only sees it in its microscopical phenomena, or what can be seen by the unaided eye? How much depends upon it? Not only does the continuance of the zoological species depend upon it, but the very lives of each member of each species is dependent upon this fact for its own life, for does not one species of life depend upon another or others for its very existence? The Biblical author only calls special attention to things having animal life, but the same is true of vegetables also. The savage who depends upon the cocoa-nut, bananna, or bread-fruit for his vital necessities, feels as confident that each tree or plant will produce fruit after its kind as the western farmer, or the day laborer that each seed planted will also produce fruit or grain after its kind. Upon this law depends then the existence of all living things. There is another side to this marvelous phenomenon to which I would like to call your attention for a moment, for the lesson it taught and teaches is to me pathetically expressed in the most profoundly philosophical passage in the whole Bible. It is this: "And the Lord formed man out of the dust of the ground and breathed into his nostrils the breath of life, and man became a living soul."

We know not who was the author of that wonderful passage, but what a text it offers for a sermon to one capable of dealing with such a subject. I am not going to essay a sermon, for I fear I should be in the condition of a certain noted minister in Boston, whom I once heard say of sermonizing: "That it was easy enough to select a text, but the Lord only knew what the sermon would be." Let us consider our text for a moment, however. Let us try and imagine ourselves in the mental condition of that first of nature investigators. What had he observed? It has

been portrayed in the first quotation, that everything was created after its kind, and continued to multiply in the same manner. The law of natural heredity first comes down to us in these expressions. But our philosopher had observed more. He had seen that not only everything living—bird, beast, insect, fish and vegetable—all followed this one law in reproduction, but we can assume that he had observed an equally important phenomenon—two in fact.

1st. That all things died or perished.

2d. That following this all things passed into dust.

Here then was a problem to catch the attention of any observing and thinking man. What mysteries are enclosed in its hidden folds to the savage and untutored. Our philosopher was not one of that kind, however. As we of to-day judge natural phenomena according to the intellectual light that is in us so did this first philosopher whose name is lost, but whose words and reflections have immortalized his intellect. Let us stop and think of the lesson this fact teaches. The immortality of a grand idea in comparison with that of great and apparently important acts. How many men and women in our so-called educated condition, have really gone beyond the position of this unknown observer in their knowledge of natural phenomena, or of life itself? He had seen that like begets like; but more, he also observed that all terminated or finally degenerated to dust. The first lesson he learned was that life begets life. How then about the dust? He must have reasoned that if like always produced like then in some mysterious way out of the dust each individual "like" must have been originally created. Then he must have stood intellectually paralyzed as we of to-day do before some mysterious and for the time unexplainable natural phenomenon. He must have asked himself, if like produces like, and all these likes which I see produce like and still terminate in dust, how can living, vital likes be produced out of the inanimate dust-like remains? He knew this of the beasts of the fields, of the fish of the sea, the birds of the air and man himself. He had seen them perish and decay and dry up into dust. How out of this dead dry dust could living entities be created? How? There was but one way open to him by which to answer this puzzling question, How? Back somewhere, beyond all, yet in all there must be a life-giving, infusing spirit capable of transferring its own vitality into this mysterious dust; this primary plastic yet non-vital material; so our philosopher assumed, and necessarily to him, the existence of this life-giving, creating, soul-inspiring spirit, to which the world has given the name of God, expressed in some manner in all ages and among all people, which was capable of moulding living things out of the dry dust and breathing its own life into them, and thus was answered the problem by this man and again we come back to the first law of life that "Like begets like."

It is somewhat singular that while this law of heredity is usually a generally accepted fact that its true realm seems to have frequently escaped even so-called educated men and that heredity is more frequently considered or spoken of in connections which have really no necessary relation to it, but rather to exceptional phenomena which go to show transmissable influences in abnormal directions. In fact this seems to be the general way in which persons observe facts connected with heredity. They really give especial attention to abnormal exceptions which prove a rule rather than to general phenomena which manifest a natural law. Let us see if this assertion has really any foundation in fact. We will turn to two pretty generally acknowledged authorities, or in school boy fashion glance into the dictionaries of which I have two before me. Dunglison, the author of a standard medical dictionary, says of heredity. "An epithet given to diseases, or to a predisposition to diseases communicated from progenitors and such diseases are said to be inherited. They may exist at birth or may supervene at a more or less advanced period of existence." Worcester says: "That which has descended or may descend from an ancestor to an heir. That which may be transmitted from parent to child, an heredity or disease."

Medical men, generally, use the word heredity in this sense, and the minds of stock-raisers are far more prone to be caught by such exceptional phenomena, than to realize the mightier fact that "like begets like" is a law of species and not a rule of pathological abnormalities which is constantly being contradicted by normal exceptions. Both law and rule must be kept constantly in mind, however, if we would intelligently develop the human race as well as the different breeds of animals. It is the law upon which we depend and the rule which we must ever seek to overcome or control. The law is there as impregnable as the "Rock of Ages." The rule exists in families but with due regard to law its action can be rendered null and void or made use of by the intellectual observance of the principles of artificial selection. We cannot change the law that man shall produce man; cattle, cattle; or horses, horses; but we can control or overcome the rule by which weakly or undersized individuals are produced in a given species. We have learned to apply this rule quite intelligently in the production of our useful domestic animals, but have utterly neglected to apply the lesson thus learned to our own species.

The art of stirpiculture, or the scientific breeding of men and women, is still among the desirable objects of an intelligent future.

Heredity is the expression of a biological law which manifests itself in the individual production of species and is expressed in the well-worn axiom that "Like begets like."

The law of heredity bears relation to what Haeckel has termed the "Phylogen sis" of a species; which is the structural and morphological history of the species as a whole from the earliest period of recognized formation to its appearance in the constantly transmitted form and structure with which which we are acquainted with it to-day. Ontogenesis is exactly the contrary. It is the evolution of the individual from the moment of its conception to its complete development. It is a compendial repetition, in every essential, of the phylogenetic evolution of the species. We shall learn more of this latter on.

It is a law that man should produce man, and if a white woman produces a black child the law has not been broken, but a rule has. The exception proves a rule which has some ascertainable cause behind it, which being discovered can be avoided if intelligent control over the relation of the sexes be observed. It is the law of heredity that horses should produce horses, but we evade the law and prove an exception to a rule when we cross a jack with a mare and produce a mule; but we know that we can easily avoid

the exception that the law can be again depended upon to bring the desired results. We cannot, however, make mules produce mules, because they are not natural species, the law that "Like begets like" does not permit of it, and so strong is the law of species that we cannot even, or thus far have been unable, make such production a rule with occasional exceptions much as we would like to from an economical point of view. The most wonderful example at present known to us of this continuation of the phylogenetic law of heredity is to be found in the horse, or equine species. Through the most wonderful changes of form from the tertiary hipparion with its one terminal digit enclosed in a hoof and its two lateral digits on the pasterns also enclosed in hoofs, we can trace this law down to the most wonderful manifestations of the results of artificial selection and man's intellegent control of nature, the American trotter, but all along this line covering the march of centuries almost beyond our conception, all these forms in the species have had certain general characteristics, most permanent among which have been the teeth by which we know that in all these ages a horse has been born. The rule by which an hipparion should produce an hipparion has been continually more and more an exception until nullified altogether by rules of natural selection and that controlling influence by which nature makes her rules subject to exceptions, the survival of the fittest, and finally produces great changes in form, but all through these vast and mysterious geological generations the law by which the genus equus should produce its like has ever gone on without one single link being lost in the genealogical history of the species.

As has been said all our efforts at breeding are dependent upon these great phylogenetic and ontogenetic laws of heredity. Both together give the key to guide us in successful breeding. Let us now con-Buddah

ONTOGENESIS.

Ontogenesis is the history of individual development, while phylogenesis is the history of development from its earliest beginning until it becomes differentiated into distinct species. An exact study of the principles underlying ontogenesis is necessary to the improvement and advancement of any form of animal life. Phylogenic heredity represents a fact of life in general. Its laws express a general principle. Ontogenesis is the manifestation of the principle and laws in individual development. But what is life? We cannot see life. We see only its manifesting phenomena. We say a thing lives because it moves and grows. That may be vegetative life only. Heredity life presupposes the faculty of transmitting life to a new individual. Its minute phenomena are those of motions so subtile that it is beyond the power of the intellect to comprehend them. As to the primary origin of life, we are still as ignorant as that ancient philosopher who assumed that man was created out of the dust of the ground. Life and material are co-eternal factors in the economy of nature. Arnold has well expressed it in his versification of the song which the winds are supposed to have sung into the ears of Buddah

"Wherefore and whence we are, ye cannot know,
Nor where life springs from, nor whither life doth go;
We are as ye are ghosts of the unknown."

But what we do know is that all life is based on certain forms of material having certain absolute chemical and physical attributes and that it manifests itself by certain phenomena which we are capable of studying, both as effects and causes, and in many cases of gradually arriving at an understanding of the effect, but behind this again is a cause beyond our ken, or as Arnold says.:

"Shall any gazer see with mortal eyes,
Or any searcher know by mortal mind;
Veil after veil will lift, but there must be
Veil upon veil behind."

Nevertheless the laws exist and the materials exist, and their wonderful manifestations will continue, even though the human race may be eventually swallowed up in the mysterious veil of eternity which neither gazer or searcher shall ever see by mortal eye or know by mortal mind.

No more truly beautiful description of the manifestations of the law in human nature has ever been produced than by the same author in his "Light of Asia," which I may certainly be excused quoting in this connection.

"Before beginning and without end
As space eternal and as surety sure,
Is fixed a force sublime which moves to good,
Only its laws endure.

"This, is its touch upon the blossomed rose,
The fashion of its hand shaped lotus-leaves;
In dark soil and silence of the seeds,
The robe of spring it weaves."

"That, is its painting on the glorious clouds,
And these its emeralds on the peacock's train;
It hath its stations in the stars; its slaves
In lightning, wind and rain."

"Out of the dark it wrought the heart of man,
Out of dull shells the pheasant's penciled neck;
Ever at toil it brings to loveliness
All ancient wrath and wreck."

"The gray eggs in the golden sun-birds's nest
Its treasures are, the bee's six-sided cell
Its honey-pot; the ant wots of its ways,
The white dove knows them well."

"It spreadeth forth for flight the eagle's wings
What time she beareth home her prey; it sends
The she-wolf to her cubs; for unloved things
It findeth food and friends."

"It is not marred nor stayed in any use,
All liketh it; the sweet, white milk it brings
To mother's breasts; it bringeth the white drops too,
Wherewith the young snake stings.

"This is its work upon the things ye see;
The unseen things are more; men's hearts and minds,
The thoughts of people and their ways and wills,
Those, too, the great law binds."

Such are some of the most striking manifestations of the law of nature. Let us now try to follow its course in animal nature, particularly in regard to points of more direct interest to us. While the origin of life, or what life really is, will remain unknown to us probably forever, still we know many of its manifestations and the manner in which they take place. We are now about to penetrate into the mysteries of heredity and to understand somewhat of that law which in reality means the transmission and continuance of life from generation to generation. In the language of the prophet and in his spirit I beg you to put all other thoughts from your mind, for the place where we are about to enter is "Holy ground." We have to learn how, and through what life manifests itself.

Many philosophers have vainly tried to give us a clear definition of life. Spencer, the greatest thinker of our day, has essayed it in the words that "Life is the co-ordination of action." How many of you have any comprehension of that sentence? To be sure you all know what action is, in a gross sense, but what idea have you of molecular actions which you cannot see? What you do or should know is that action is co-ordinated, that is equalized or regulated by certain law or laws. But what we want to know is what acts and as far as we can how it acts?

LIFE IS THE TRANSMISSION OF REPRODUCTIVE POWER FROM A MATURE TO A DEVELOPING INDIVIDUAL.

The unit of life in all its varied forms, it matters not whether animal or vegetable nature, has been definitely determined to be a cell, a monad, to use a term applied to one-celled organisms. In other words, the smallest and most minute organisms of which we have any knowledge are units in themselves, and in this sense have all the essential attributes of the most complex and composite units of higher life; for instance, a man or a horse. This one-celled unit can not only take on nourishment to support its own life, but a sufficient surplus of it to carry on its work in nature, and according to the laws of heredity, reproduce itself, that is to bring forth its like. This it does by the very simple process of fission or division of its own body as soon as it has grown sufficiently. Thus like begets like, and life has been transmitted to a new unit, and so it goes on continuously from unit to unit. The germs, or bacteria, of which you hear so much at present and which play such an essential role in our lives, happiness and prosperity all belong to this class of single cells or units and develop in one or two ways directly out of each other. Every vegetable that we raise, every tree which beautifies our forests or graces our gardens, every animal on our farms, and every child that we produce, all take their start in such a unit of life, and the entire phenomenon represented in the life of the highest organism is but the result of the the co-ordinated action of untold units of this kind, each of which individually, reproduces itself in exactly the same manner, though a little more complex in character, as our prehistoric as well as existing monad ancestors and relatives, though it is very hard for the ordinary mind to comprehend the relationship. While the monad organ and organism are represented in the unit or cell which performs all the functions necessary to its simple life, in the higher animals we find millions of these monads, units, or cells, united together into organs and the combination of all these organs makes up that complex unit or organism which we call a man, a horse, or a steer. But the story is the same in one respect, in that each of these cell-units has the same functions as the original monad. They must nourish and reproduce themselves. But they have another function which the monad has not. They must do their work not only as a part of an organ, but also as the part of an organism. Their functions are varied then. They must nourish themselves; and each take on nutrition enough to reproduce itself in its own kind and they must also take up sufficient nutrition to enable them to do their part in the physiological machine which we know as a mammal.

Let us see now how fully these principles of cell action find their exemplification in our own lives. As a unit in the social structure, we are of necessity bound to work in order to find nutrition for our own continuous life. When we cannot do so from physical disability, as is the case with the cell-unit also, we die. As individual units in the economy of nature we must also take nourishment to produce surplus energy enough to reproduce ourselves and thus contribute to the continuation of our species, and carry out the laws of heredity, the transmission of life to a new unit which is destined by the same law to continue the work. Again, social responsibilities have rendered it necessary that we follow the example of the cell-units in the organs of our body, in that we have certain responsibilities or duties as part of that still more complex, though artificial unit, the State or Nation and even that larger unit, the human world.

Thus you see a common law governs the actions of the units of life. Going back to the cell as the primary unit of life and recognizing the fact that all forms of life must of necessity take their origin in such a unit we find this law expressed in the axiom formulated by the greatest philosopher medical science has yet produced, Rudolf Virchow thus:

"*Omnis cellula ex cellula*,"

which is simply this, the origin of all life is in a cell and all the phenomena which we recognize as those of life are but the result of cell action. When you think, when you move, when you eat, when you digest, when you take your part in manifesting the truth of the law of heredity, you but manifest the results of cell action, for every part of your body is either made up of cells or is the result of cellular proliferation, and all these parts took their primary origin in two single cells, the ovum of the mother and the spermatozoon of the father. The same rule applies to all forms of animal life and in a certain sense to the forms of higher vegetable life also.

THE MAMMALIAN OVUM.

The mammalian ovum lives. Of itself it lives but a vegetative life, however. It cannot reproduce itself. It is the product of the life of the mother. To produce it is her great physiological and biological function in the economy of nature. For this reason and this only has woman been made woman. She was no more made for man than man for her. The same is true of every other species of life that is differentiated into male and female. Neither sex of themselves can fulfill the laws of heredity. Neither alone can transmit life to a new individual. In the generic sense, it takes a man and a woman to make a man. We know that this is so in a practical sense. As individuals alone they but vegetate. It is equally true of all animals. It is not true of many of the lower forms of life where we find the sexual attributes united in a single individual. Our own descent or ascent from such lower forms is clearly manifested in the fact that during the earliest periods of fœtal life it is impossible to distinguish or assert to which sex a given fœtus belongs. It would be equally difficult to distinguish the human embryo from that of many of our domestic animals at certain early periods of their existence.

What destinies are locked up in this mammalian ovum. Be it human, it has the possibilities of a Spencer, a Darwin, a Virchow, a Newton, a Bacon or an Aristotle. Its product may be either a curse or a blessing to the world. Be it of animal origin, the re-

sults of its development may be a hundred-thousand-dollar trotter or runner, a Duchess cow, or even a ten-thousand dollar dog. In the old days when man knew nothing of this wonderful unit of heredity development, it was assumed that our good mother Eve had enclosed in her body the embryo humanity for all futurity, and men even went so far as to compute what the number was, and fixed it at two hundred thousand millions. The calculation may have been erroneous, but in the heredity sense the philosophical idea was undoubtedly correct. The egg of egg-producing animals was once thought to represent the unit of life and it was assumed, judging from analogy only, that the female mammalia, including women, also produced eggs. This idea was formulated into the saying: "Omnis ovum ex ovum," or all things take their origin in an egg, by Harvey, the noted discoverer of the circulation of the blood, 1620. The ovum proper was first discovered by Von Baer in 1827, and its true value demonstrated with the establishment of the cell theory of development in 1839. The male unit of generation, the spermatozoon, has the honor, however, of a far more antiquated lineage in relation to its discovery which was made by a Dutch student in Holland, in 1677. The spermatozoon unit is far more of a single cell in its character than the female ovum, which, while we call it a cell, is more of a composite organism, a point to which we will return in a few moments. The spermatozoon unit is of rather marked structure. At its larger end it is distended and has a projection from the anterior portion of its body, while its posterior portion extends into a middle piece which loses itself in a flagellum, or tail, by which it moves itself about in a most rapid and interesting manner and by means of which motion it finds its way through the uterus into the Fallopian tubes which connect that organ with the ovary. It way be well to state that it is in these tubes that the spermatozoon generally meets the ovum and there impregnates. This peculiar appearance of the spermatozoon (it is a microscopic object) led the earlier observers to look upon it as the embryo child and in its different parts they imagined they saw the head, body and limbs of the future individual. With this conception in their minds they first thought it moved into the uterus, as a sort of incubator, and even when the ovum was first discovered it was assumed that the spermatozoon simply penetrated it and there found the nutrition necessary to its earliest life until it grew and gained strength to attach itself to the walls of the uterus. All these ideas have been completely dispelled through the investigation of modern embryologists, and it is now known that but one spermatozoon is necessary to the fecundation of a single ovum and that when it penetrates the outer menbrane of that object nothing but the so-called head remains and that soon disappears. But what a change has been brought about! In this act has been fulfilled the first act in the drama of life. No life, as we term it, existed in that ovum previously. The law of heredity has now been fulfilled. 'Tis a solemn act, my friends. The most wonderful and glorious phenomenon of the many which nature presents to our study in this act is bound up the happiness or misery of an individual, the success or failure of deep-seated ambition. Here life begins for the individual. Beyond this is misery or death, success or failure, no matter which way we look at it. The traits of the father, desirable or undesirable, are transmitted to the ovum of the mother in this momentary act of the spermatozoon. Nothing more! The whole organization and structure of the individual are mysteriously combined in the ovum of the mother. While the monad cell may be defined a simple circumscribed mass of protoplasm, or primary formative material, which is the accepted definition of a cell, and its reproduction simply the result of a process of fission, or division, of one such an object into two, the monads or cell-units of our organism are composed of other parts known as nucleus and nucleolus, the process of reproduction beginning in the latter and the production of the daughter cell within the body of the mother cell from which it escapes, or becomes free after consuming or destroying its mother, as it were.

But our ovum is no such simple unit. It has an enclosing membrane, known as membrana pellucida or transparent membrane; it has a nucleus and a nucleolus also, but still more it contains a large amount of granulated material which may be compared to the yolk of an egg, and which serves to nourish the future chick before the days that it has assumed any definite character or form. On fecundation this nucleus and nucleolus disappear and shortly the whole cell or ovum is filled up with numerous cells, each of which go on multiplying and soon begin to differentiate into certain definite strata or layers which are known as the germinal plates, or technically as the endo-derm or inner, the meso-derm or middle, and the ecto-derm or external germinal plates. Briefly speaking, from the endo-derm is developed, by cell multiplication, regulated by the hereditary law that like begets like, the lining of the intestinal tract and a portion of the lungs, the liver, the kidneys, and the so-called glandular bodies of the organism. From the meso-derm are developed the muscles, the nerves, the coverings of the glandular organs, the bones, the tongue, the heart and portions of the skin and probably the blood, and from the ecto-derm, the epidermis, or outside covering of the skin, the hair, the nails, and most astonishing of all phenomena, the brain and spinal cord. This enumeration will answer for our purpose. The point to which I desire to call your reverential admiration is this, that in this nucleolus of the ovum was contained the physiological matrices or incentives to the development of all the tissues which go to make up that complex machinery, your organism and that of all animals. That in that microscopic object was locked up not only the destinies of all these tissues, but of the future organism, and that all that was necessary to set development in motion, to fulfill the laws of heredity, was the almost momentary contact of the microscopic head of the mail spermatozoon with this apparently lifeless, and until then really lifeless microscopic point, the nucleolus of the female ovum. Think! how from this little object by a process of division and division thousands of times repeated are produced thousands of cells, each of which follows the laws of heredity as in their ancestors for unknown generations, and like an army of well-drilled soldiers each taking its legal place in the serrated plates of development; some to develop muscles, others bones, others the organs, others blood, and still others the great governing and motor controling and intellectual organs of the body; each following out the law of life that like begets like. Another thing you must have observed and that is

that in the ovum itself there was not a single tissue primarily existing of either father or mother; neither blood or muscle, brain or bone. The ovum simply contained a single element which combined in itself the physio-biological direction out of which, on fecundation-irritation, were to be developed all the elements out of which a new being was to be composed and which constitutes the anatomical structure of all animals of the same species. Not one single drop of blood of the mother or father was present in that ovum at the moment of its fructification, and not one single drop of the blood of a new individual was ever in the body of its parents. Hence, the expressions that "Blood tells," "They are of the same blood," while in reality expressing the fact of hereditarily transmitted life, are in all truth rank humbug. Each individual's blood is its own and not its parents. The laws of heredity simply enable the parents to transmit to their offspring blood producing organs or parts. It is the physiological direction which tells.

ARTIFICIAL SELECTION AND HEREDITY.

It should be now manifest to you that by heredity or the laws of heredity is simply meant that life produces itself in certain zoological directions, having to do with anatomical structure, form and action, or in other words, that everything produces itself according to its kind. In tissue structure there is no essential difference between man, horse, dog, mole, or rat. All have muscles, bones, nerves, livers, hearts, brains, etc., all of which are composed of the same unit-cell elements, but the elements are put together in different combinations, relations and proportions. Structurally speaking, there is no elementary difference between the slow moving, massive draft horse and the fleet thoroughbred or 2:10 trotter; but the proportion of the different elements to each other and their manner of combination varies. In the same sense there is no structural difference between the weak-hocked, weak-lunged or weakly nervous individual and one that is just the contrary, but these are weaknesses in the character of the elements or they bear such relations to each other as to be in themselves weakness. We call these conditions inherited tendencies, but they are not strictly so according to the laws of heredity because they can be modified or entirely overcome in offspring by judicious selection, or they can be increased in intensity by unintelligent crossing. Under natural conditions such transmissible weaknesses are soon equalized by what is well termed the "Struggle for existence," and the "Survival of the fittest." The weak members of a species soon go to the wall. Under artificial conditions we have gone on unintelligently increasing their influence for evil in a most summary manner. Spavins are not natural to horses; they are not truely hereditary productions or evils, or else every horse would be born with weak hocks. In nature the weak-hocked horses would soon fall lame and behind the herd and become the victim of carnivorous animals or excluded from the possibility of breeding, but the farmer who simply breeds a mare to get a colt and takes no notice of predisposing weaknesses in sire or dam is almost sure to obtain produce still more inferior in structure than the parents. Consumption is not a natural result of the laws of heredity in our own species, but inconsiderate and unintelligent marriage for centuries has led to the production of weak lungs in certain families which predisposes their offspring to this fell disease. The cure for consumption is in the cold-blood selection of persons fitted to produce children and sensible hygienic methods of life. The way to increase it is to marry inconsiderately, for a pretty face or money, utterly regardless of physical conditions and then to lead the ordinary unintelligent life of parties, theaters and hot suppers and cold draughts.

The incentive to these constitutional weaknesses is in the productive cells (the spermatozoon and ovum) of the parents, but the disease itself is not there.

Such weakness can be bred out or in, but the offspring will ever belong to the species of the parents, be it man or brute, bird or fish. Hence the laws of heredity know no such things as an exception. These transmitted and transmissible weaknesses of elementary organic structure of conditions, may be the predisposing cause to diseases of many kinds, or malformations, and such transmissible weakness can be unintelligently augmented in intensity by injudicious breeding or gradually overcome by the intelligent use of the faculties of observation and reflection.

The human race will continue to curse itself and the sins of the fathers be visited upon the children until Stirpiculture becomes as exact a branch of human science as the breeding of finer animals is fast becoming under the intelligent influence of the improved livestock growers of this and other countries.

Medical Properties of Vegetables.

Spinach has a direct effect upon the kidneys.

The common dandelion, used as greens, is excellent for the same trouble.

Asparagus purges the blood. Celery acts admirably upon the nervous system, and is a cure for rheumatism and neuralgia.

Tomatoes act upon the liver.

Beets and turnips are excellent appetizers.

Lettuce and cucumbers are cooling in their effects upon the system.

Onions, garlic, leeks, olives and shalots, all of which are similar, possess medicinal virtues of a marked character, stimulating the circulatory system and the consequent increase of the saliva and the gastric juice promoting digestion.

Red onions are an excellent diuretic, and the white ones are recommended to be eaten raw as a remedy for insomnia. They are a tonic and nutritious.

A soup made from onions is regarded by the French as an excellent restorative in debility of the digestive organs.—*Scientific American.*

A woman by the name of Trollinger, living near Lessville, Mo., dropped dead from paralysis of the heart caused by fright. Her son was cutting down a tree and she was sitting in a wagon near by watching him. The tree began falling in the direction of where she was, and when the boy called to her to get out of the way she was unable to move, and the tree crushed down the rear of the wagon. As this occurred she fell back dead. Upon examination it was found that the body presented no evidence whatever of any injury and the physicians rendered their verdict in accordance with the above.

The difference between homœopathy and allopathy--antipathy.

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

At a recent joint meeting of the Chicago Medical Society and the Chicago Medico-Legal Society, the subject of "Insanity" was very fully discussed. Dr. H. N. Moyer read a paper entitled, "The Past and Present Laws Regarding the Legal Restraint and Detention of the Insane for the Purpose of Care and Treatment." He explained the regulations for the government of maniacs, and read a number of extracts from the laws governing some of the States and Territories. He was followed by Dr. Sanger Brown, who spoke on "The Proposed Changes in the Present Laws Regarding the Treatment of Insane in Illinois." The vesting of the entire control of the institutions in a Board of Commissioners was fully dwelt upon, and the great benefits to be gained by the reforms, which have been spoken of for years—especially the abolishing of politics—was made the principal theme of his address.

Dr. James G. Kiernan read quite a lengthy paper on "Newspaper Reforms in Insane Asylums," in which he fully discussed this side of the question.

Was It Experiment, Science or the Brazen Cymbals?

It is but a few short weeks since the public was regaled with an elaborate account of a novel and wonderful operation of skin grafting performed by a well known surgeon of Chicago. Several hundred gallant Knights Templar sacrificed as many inches of sacred cuticle to enable the surgeon to save their brother's life. In view of the fact that the patient died a few days later one might naturally ask *cui bono*? What was the object of the operation? Was it to save a life threatened with immediate destruction? If so, how long since skin grafting has been a saviour in such critical emergencies? Could it be possible that the surgeon could not estimate his patient's condition with sufficient accuracy to know that skin grafting was a poor substitute for a clergyman? Or was it a glorious opportunity for the sounding brass, well grasped? The profession fain would know how the right hand discovered what the left hand was doing. How did the reporter get in? The Knights deny all desire to herald their chivalric exploit. Will some one explain? Alas, that a Moses should arise in Germany to lead our profession from a dignified obscurity into the realm of mountebanks and imps of outer darkness. Alas! for the dignity and seclusiveness that our fathers in medicine preserved aforetime. Alas! for the chronicle of the medical author of the future as he stands in the effulgent rays of the medical luminaries of the year 2000 and barks back at the ethical regulars of the last decade of the 19th century. And woe to him who giveth up his shekels and maravedis at the newspaper offices for legitimate advertisements. Thou art a fool, mine erring brother; there is a fairer, more ethical, strictly regular and vastly more economical road to fame.

All honor to the gallant Knights Templar for their sacrifice in behalf of a stricken brother, but let us hope that they were not innocent abettors of what appears at this writting to have been the most stupendous piece of advertising quackery of the century. Should it prove to have been indeed a mercantile affair we are certain that the knights were deceived for they expressly stipulated that the matter was not to be made public in the form of a newspaper report. But Chicago has made a noise and Germany had best look out for her laurels.

OBITUARY.

Dr. William L. Axford.

The following is the gist of a memorial adopted by by the Chicago Academy of Medicine anent the death of W. L. Axford which occurred January 17.

"Death loves a shining mark." The keenness of this truism has been brought home with a pang to the hearts of the Fellows of the Chicago Academy of Medicine by the recent death of one of our ablest, most promising and most genial fellows: Dr. William Livingston Axford. Dr. Axford has endeared himself to every fellow of the academy by his genial courteous manners, his high professional ideals and

his sympathetic kindness. Few physicians leave such a gap in professional ranks. Dr. Axford was critically well grounded in medicine and was peculiarly apt to detect the specious character of the blatant medical sensations of the day. He was an able conservative surgeon and devoted more attention to plastic and reparative procedures then to slashingly brilliant operations. He was careful but not radical about asepsis. He displayed the *tactus eruditus* of the born surgeon. Dr. Axford was born in New Baltimore, Mich., January 14, 1858, of an old American family which numbered more than one physician. The late Dr. S. M. Axford of Flint, was a cousin of

his father. He received a broad academic training in the University of Michigan, where he imbibed a fondness for the Latin, Greek and English classics, which he retained throughout life. He was a careful student of English and American constutitional history, and hence exhibited an unusual breadth in the discussion of political questions. From the academic department of the University of Michigan he passed into the medical department where he was graduated in 1881. He came to Chicago in that year and without college professorship, church or society connections, established an excellent reputation as a surgeon. He took a deep interest in every attempt to benefit the medical profession, whose old ideals were excellently exemplified in his relations with his brethren. The snobbishly ethical he viewed with contempt, and frequently expressed the opinion that those physicians who were ultrasticklers for ethical points, other than those laid down in the Golden Rule, were not to be trusted in their relations to the patients of other physicians. Dr. Axford had a congenital tendency to the uric acid diathesis, but despite occasional attacks of cardiac syncope persisted in working until gastro-intestinal symptoms compelled him to quit. He died from cardiac paralysis. *Vita enim mortuorum in memoria vivorum est posita.*

Dr. Hosmer Allen Johnson.

Dr. Hosmer Allen Johnson, one of Chicago's most distinguished physicians and surgeons, died February 26th, after a brief illness. He had been unwell for several days, but not so seriously as to cause alarm to his family and friends. Heart failure was the immediate cause of death, although the primary trouble was pneumonia. During the forty years of his residence in Chicago no man stood higher in the profession of medicine, and he ranked equally well among the medical men of the nation. Dr. Johnson was born in the village of Wales, near Buffalo, N. Y., Oct. 6, 1822, and received his first school training at Boston, N. Y., where his parents resided during his earlier childhood. In 1834 they removed to Almont, Mich., where he worked on a farm, devoting his leisure time to study. At the age of eighteen years he was teaching school, and in 1846 he entered the University of Michigan at Ann Arbor, but after two years of close study he was obliged to seek a change of climate in the South on account of pulmonary troubles. He continued his studies, however, and in 1849 passed the examination and was graduated from Ann Arbor. In 1850 he entered Rush Medical College in this city, earning a living during his student life by teaching school. In 1851 Dr. Johnson became the first resident physician of Mercy Hospital and received his diploma from Rush College—the acknowledged leader of the class of that year. He joined the faculty of Rush and continued a member of it until 1858, when with others he organized the medical department of Lind College, afterward the Chicago Medical College. During the same year he was elected president of the Illinois State Medical Society. Dr. Johnson was one of the founders of the Chicago Academy of Sciences, and was also a member of the American Association for the Advancement of Science and of the American Medical Association, which society sent him as a delegate to Europe in 1865. In 1861 Governor Yates appointed him a member of the State Board of Medical Examiners, of which he was elected president and on which he served during the war.

For six years Dr. Johnson was a member of the Chicago Board of Health, and later on he served with distinction on the National Board of Health. He was long a consulting physician of the Cook County Hospital and attending and consulting physician of the Chicago Charitable Eye and Ear Infirmary. After the great fire of 1871, Dr. Johnson was one of the first on the field to offer assistance to the sick and homeless, and he directed the medical work of the Chicago Relief and Aid Society.

Dr. Johnson was married in 1855, to Margaret Ann Seward. Two children, Dr. Frank Seward Johnson and Miss Flora Belle Johnson, survive him. Dr. Frank Johnson is the lecturer on histology in the Chicago Medical College, and shared his father's large practice. For many years Dr. Johnson has resided at No. 4 Sixteenth street, next door to the residence of Dr. Edmund Andrew. From the time of his boy life in New York and on the Michigan farm, Dr. Johnson has ever been a profound student, both in his profession and outside of it. In diseases of the lungs and throat he was an authority. His practice, which for many years has been extensive, he attended to carefully, and despite his own complaints was always at the beck and call of his large circle of patients. Each year he sought rest and recuperation from the ills incident to pulmonary troubles by a sojourn in the South. One of Dr. Johnson's favorite pastimes was the study of astronomy, a science he greatly admired. He had a small observatory with powerful glasses arranged on an elevation in the rear of his home. He daily spent an hour or so studying the heavens.

Personally Dr. Johnson was a kindly gentleman, easy of approach and most entertaining in conversation. But he was quick to defend himself and his profession, as he amply demonstrated when he was on one occasion attacked by the late Wilbur F. Storey, the great editor of the *Times*. Dr. Johnson had cared for one of Mr. Storey's wives in her last illness. After her death Mr. Storey attacked the physician through the columns of his newspaper, charging him with carelessness in his treatment of his patient. Mr. Storey for once met his match, for Dr. Johnson, finding space in a rival paper, replied in kind to the eccentric old journalist's attacks, and he did it in a manner so masterly and relentless that Mr. Storey was glad to beg truce at an early opportunity.

Less than two weeks ago Dr. Johnson went to Wisconsin to assist another physician in a consultation. Saturday, February 14, he attended a faculty meeting of the Chicago Medical College, of which he was the president of the board of trustees and emeritus professor of principles and practice of medicine. He retired from active service six or seven years ago on account of his poor health. He was taken with pulmonary hemorrhage while pursuing his classical course in the Michigan University. The attack was so severe that he was compelled to leave Ann Arbor for a change of climate. He, however, pursued his studies alone and later graduated at that university. He continually had trouble with his lungs, and in seeking to improve his health by a change of climate he crossed to Europe and visited different parts of our own country almost every year for the past twenty years. He had three or four attacks of pneumonia before this last one, which was in an accute form and

caused his sudden death. Last December he attended the annual meeting of the American Health Association, of which he was an active member and two years ago president, held at Charleston, S. C. He was quite unwell when he started, and hoped that the trip South would benefit him. But it improved his condition little. For the past six months he has been failing. In spite of the fact that Dr. Johnson was for many years past in poor health, he has ever been an active and efficient worker and a leader in his profession, and especially in his connection with the Chicago Medical College, of which he was an energetic worker at the time of its organization in '59.

COMMUNICATIONS.

An Insane Man's Letter about Col. Ingersoll.

The following letter was written by a patient in the State Hospital for the Insane at Madison, Wis., when suffering from an attack of mania.

He was an extremely troublesome patient, and whether sane or insane (he had several attaks of insanity) was boisterous, profane and pugnacious, and being very large and possessed of tremendous strength, he was difficult to control and effected his escape several times in spite of every precaution and restraint.

At his last commitment to the State Hospital, another method was tried and as he promised he would not attempt to elope he was given the privilege of going and coming as he pleased, and was also given charge of the cows at the barn, where he did excellent service and in a few weeks recovered.

He was retained as an employe to care for the cattle for nearly a year, when another attack of insanity necessitated his commitment to another institution.

His letter is given *verbatim et literatim.*

MENDOTA ASSYLAM——

I see it announced in the papers that Colen Ingersoll the Dollar a ticket infidel has struck it big in a silver mine & is now Worth a Million Dollars. Here is another Evidence of the goodness of God. Ingersoll has treated God with the greatest contempt—call Him all the names he could think of—call him a liar—a hartless Wretch & stood on a stump & Dared God to knock a chip off his shoulder & insted of Gods letting him have one below the belt & Knocking seven kinds of cold victuals out of him, God gives him a pointer on a silver mine & the infidel rakes in a cool million & laughs in his sleeve. While thousands of poor Workers in the Vineyard are depending for a livelihood on collections that pan out more gun wads & brass pants buttons to the ton of ore than they do silver. This may be all right & I hope it is & I don't want to give any advice on anybodys elses bisness, but it would please christians a good deal better to see that bold man taken by the slack of the pants & lifted into a poor house While the silver he has had fall to him was distributed among the chairatable societies; mission schools & churches, so a minister could git his salary & buy a new pair of trousers to replace those that he has Worn the Knees out of Kneeling down on the rough floor to pray. It is mighty poor consolation to the ladies of a church society to give sociables, ice creameries, strawberry festivals & all Kinds of things to raise mony to buy a carpet for a church or lecture room & wash their own dishes & then hear that some infidel who is around the Countery Calling God a pirate & a horse thief at a dollar a head to full houses has maraxilously struck a million dollar silver mine. To the toiling minister who prays Without ceasing & eats codfish and buys clothes at a second-hand store it looks pretty rough to see Bob Ingersoll Steered into a million dollar silver mine. But it may be all right & (I) presume. it is. Maybe God has got the hook in Robt. mouth & is letting him play around the way a fisherman dose a black Bass & When he thinks he is running the whole Bisness & flops around & scares the other fish it is possiable Robt. may be reeled in & will find himself on the bottom of the boat with a finger and thumb in his gills & a big foot on his punch & he will be compelled to disgorge hook, bait & all & he will lay there & try to flop out of the Boat & wonder what kind of a game this is that is being played on him.

Everything turns out right sometime, and from what I have heard of God off and on, I don't believe he is going to let any ordinary man—bald-headed and apoplectic—carry off all the persimmons, and put his finger to his nose and dare the ruler of the universe to tread on the tail of his coat. Robt Ingersoll has got the bulge on all the Christians now, and draws more water than anybody. But (He) who notes the sparrows fall has no doubt got an eye on the fat rascal, and some day will close two or three fingers around Robts throat, When his eyes will stick out so you can hang your hat on them, and he will blat like a calf and git down on his knees and say: "Please, Master God, don't choke so, and I will give it all Back & go around & tell the boys that I am the almightiest liar that ever charged a dollar a head to listen to the escaping wind from a blowen-up blader. Oh, good God, don't hurt so. My neck is all *chafed*, & then he will die, and God will continue bisness at the old stand. * * * To be continued if Mr. Ingersoll will answer. J. W. J.

Inmate of the Mendota Insane Assylam,
neare Madison, Wisconsin.

I have presented the above letter not only because it was a curious one, but also to illustrate one of the many improved methods of caring for the insane in our modern hospitals and asylums.

Instead of being utterly isolated, restrained and treated more like wild animals than unfortunate fellow beings, they now have many privileges; one of which is free access to the literature of the day; and they are as a rule better posted on current events than an equal number of sane people, who do not read so much.

Many are the discussions on religion, politics, literature, etc., held over the social games so much indulged in by patients in our public institutions, and he must be a well posted visitor who does not frequently meet his match among the inmates of the wards.

S. B. BUCKMASTER, M. D. Chicago.
(*Late Supt. Wis. State Hospital for Insane.*)

"A Remarkable Case of Skin Shedding."

Such a case was published by Dr. J. Frank on page 37, Feb. No. of the WESTERN MEDICAL REPORTER. I would say that in the evolution of the said John H. P— in his mother's womb from a fish to a serpent and from a serpent to a bird and from a bird to a quadrumania and from a quadrumania to a man he failed to become evolutionized from the ativeism of the serpent of sheding his skin once a year.

To cure the aforesaid John H. P—, forestall the recurrence of the shedding of his skin by hypodermic injections of some of the blood of a snake which has shed his skin within three months, also anoint the patient with some of the oil of a snake which has shed its skin within three months. Injection per rectum of some of the blood, would be just as good as per skin. I think a similar treatment would cure scarlatina, ichthyosis, psoriasis, leprosy, and even rheumatism; for the snake never seems to have rheumatism.

I was the first to publish the suggestion that immunity and cures from many diseases might be communicated to man and beast by transfusion. and also injections of fortified blood. (See pp. 160, Feb, No. of *Medical Brief*.

SILAS HUBBARD, M. D.
Hudson, Ill.

Cure For Hog and Chicken Cholera.

To cure hogs of cholera and also prevent them from taking the disease, roast such hogs as have very recently died of the disease and feed the roasted carcass to all hogs that are affected with the disease, and to the well hogs to prevent them from taking it. Roasting the dead hogs kill the germs in general which causes the disease, and those germs which are left alive are so damaged or scorched that they could only cause the disease in a mild form, and it being a self-limited disease, it would run its course much milder and recover without any fatalities; besides the bacilli have done their worst on the dead hog and probably poisoned themselves by their own excreta, and thus left a ptomain which helps to weaken or kill the bacilli in all stages of the disease and thus helps to cure the sick hogs and prevent the well ones from taking the disease.

To kill chicken cholera roast the carcasses of fowls recently dead from the disease, and feed the roasted carcasses to the sick chickens, and also to the well ones to prevent them from taking the disease, all for similar reasons to those I give above regarding hog cholera.

Sick hogs fed on the fresh blood of ruminating animals will recover from hog cholera, and the well ones if fed on the fresh blood of ruminating animals will not take the disease. The same might be said regarding chicken cholera. Hogs and chickens ought to be kept in clean, new pastures.

SILAS HUBBARD.

Thos. Northwood, a boss roller employed in the iron rolling mills at Bronton, N. J., while in the act of repairing what is known as the coupling-boxes, his overcoat caught in the wires holding the stretcher, the latter being of wood, and belonging to the immense heavy rolls. The men at work in the mills were startled by hearing Norwood make a sudden outcry, and saw the man's body drawn into the coupling. When it came out it presented a terrible spectacle, being a flattened mass not more than three inches in thickness.

A. Hartung, of Denver, Colo., and his entire family, were recently poisoned by eating raw pork. The meat was purchased from a peddler, dressed with cabbage, spices, etc., after being chopped and not cooked. Several of the family have died from the effects produced by the meal.

ABSTRACTS.

Surgery.

FRACTURE OF THE BASE OF THE SKULL, WITH RECOVERY.—E. B. La Fevre, *Cincinnati Lancet-Clinic*. Harry A., aged 24 years, was struck in the left ear with the bare fist, on the night of April 8, 1890, and came under my notice about twenty-one hours afterward. The young man who accompanied him at the time, stated that upon receiving the blow he fell to the pavement unconscious, and remained so for at least five minutes, but after regaining his senses walked about half a block to his room, his mind being perfectly clear and he complained of no particular pain. During the night there was a profuse discharge of blood from the left ear, which completely saturated a towel by morning, and on attempting to rise he found it impossible on account of dizziness and vomiting. This continued throughout the day and a supraorbital headache developed, which, however, was not very severe.

Examination revealed no cuts, bruises or other discolorations, visible externally, but the blood still continued to flow from the left ear. Temperature, pulse and respiration normal. An attempt was made to examine the ear with mirror but the meatus was found to be entirely filled with blood-clots; after their removal the drum was seen to be ruptured in a slightly oblique direction, from above downward, and a small bleeding point was discovered in the posterior wall of the meatus a little in front of the drum. The examination plainly showed fracture of the base of cranium, and the patient was ordered to maintain an absolute recumbent posture with ice to his head. Sodium bromide and fluid extract of ergot was prescribed, with a mild cathartic for his bowels.

The next day, in the morning, the dizziness of head was somewhat relieved, the vomiting almost ceased, temperature and respiration normal but the pain in head was as severe as ever and by five o'clock in the evening patient became delirious; temperature 99.5°, pulse 57, respiration 17. The discharge from the ear gave unmistakable signs of cerebro-spinal fluid, becoming yellow and slightly tinged with blood.

The following morning the discharge had almost ceased; temperature 100°, pulse 55, respiration 16, and the pain in the head had become unbearable. The bromides failing to have any effect upon same, he was given a hypodermic injection of morphine after which he lapsed into a semi-comatose state. Upon examination of urine a small quantity of albumen was detected, but no sugar.

Two days, after an examination revealed fracture of the zygoma about its middle portion, but nothing was done as the fragments were in perfect apposition. Six days after the accident he was able to take a slight quantity of food for the first time, and his condition was very encouraging, continuing so for three days, when the vertigo and headaches returned; the ear commenced to discharge, and a slight swelling was noticed in the meatus. This continued enlarging until it almost blocked the meatus. The patient complained of severe pain in the ear and became delirious. Temperature 101.5°. A hypodermic needle being inserted and free incision being made about three teaspoonfuls of pus were evacuated, almost completely relieving the pain. Hot fomentations were kept constantly

applied to ear and the alarming symptoms rapidly disappeared, temperature returning to normal.

Patient made an uninterrupted recovery, being as sound and healthy as ever with the exception of the left ear, which is perfectly deaf.

REMOVAL OF A SKEWER FROM STOMACH, WHICH HAD PENETRATED THE THORACIC WALL. RECOVERY. D. Lawson, M. D., *The Lancet.*

Upon a summons to the asylum by the medical superintendent, I found W. A., aged thirty-seven, a laborer, who had for a number of years been an inmate of the workhouse and asylum, but lately had manifested suicidal tendencies. He was rather thin and anæmic, muscles flabby, small boils on back of neck, and the epigastrium reddened, evidently from a blister. His heart and lungs were normal, breathing somewhat rapid, otherwise normal, tongue flabby and congested, covered with a moist brown fur, and the fauces were red and congested. There was considerable sensitiveness in the left side and he complained of pain when touched in that region, although the tenderness did not seem to be confined to any one spot.

He manifested an aversion to food but would take a small quantity after much pressing, otherwise there were no symptoms specially pointing to stomach, such as nausea or vomiting. The pain continued in left side but no abnormal appearance was noticed until at the expiration of four days after examination, when a small nodular prominence appeared under the seventh costal cartilage. This was painful when touched and upon pressure would disappear with a jerk.

There was no redness nor discoloration to be noticed at first but it soon began to be seen around the prominence, and abscesses seemed to be forming. Poultices were now continuously applied and in a few days a small opening formed in center and the underlying tissue was apparently gangrenous. The next morning a foreign body projected from the opening. This seemed to be a stiff iron wire about six inches in length and resembled an ordinary knitting needle. It could be pushed back and rotated to a certain extent, but it was impossible to make it pass through the center of this black slough, which was now situated between the seventh and eighth costal cartilages. The cause of the obstacle to withdrawal of this wire was not apparent and no information whatever regarding it could be obtained from the patient.

There being no pleurisy or peritonitis present it was evident that this foreign body in its passage through the stomach and other structures penetrated, had set up sufficient adhesive inflammation to glue together the various layers and effectually prevent the escape of the contents of the stomach into the peritoneal and pleural cavities.

Upon consultation, it was decided to open the stomach and an incision was made parallel to the left margin of the substernal triangle and having divided the muscles and opened the peritoneum, hold was obtained of the anterior wall of the stomach, which, with a small piece of the great omentum presented at the wound. An inch long incision into the stomach was made, the finger introduced and behind the lower end of the sternum a rod was felt with something like a handle attached to it. Hooking the finger around this objeet and applying a slight amount of force there was drawn out a skewer 7½ inches long, with an oval eye through which passed a fragment of the stem of a clay pipe 2½ inches in length. The incision was stitched up with sutures in the usual manner.

On the fourth day the wound looked clean and healthy, and on the sixteenth day was completely cicatrized. The first nine days after the operation the patient was fed entirely by rectum, but afterward by the mouth, his diet consisting first of milk and beef and milk and eggs. After twenty days solid food was given and the patient made a rapid and perfect recovery although he still remains an inmate of the insane asylum.

EXCISION OF LUPUS OF THE FACE, WITH IMMEDIATE SKIN TRANSPLANTATION.—Geo. Ryerson Fowler, M. D., *Brooklyn Medical Journal.* Mrs. O. B., aged 65, presented a well marked lupus exedens of the nose, the disease having involved the entire integument, with the exception of a small point at the tip, extending upon the cheeks and to the inner canthus of the left eye.

At the time the patient came under my observation the superficial surface involved measured 5 ctm. vertically by 7.5 ctm. transversely, and had existed for several years, commencing with a small pimple on left side of nose which after some months began to ulcerate, this extending slowly, new tubercles making their appearance and these undergoing the ulcerative process. An operation under ether was performed, by making an incision entirely around the diseased portion and which extended through the thickness of the skin to the subcutaneous cellular tissue. The structures were thoroughly removed by scalpel and curette, stopping short only of periosteum and bony structures. Hot salt-water compresses and firm pressure arrested the hæmorrhage.

After disinfecting patient's left arm, strips of skin from the deltoid region were immediately transferred to the nose and cheeks, from which the lupus tissue had been removed. These were laid side by side with edges overlapping, nine strips covering the whole surface. The parts were then basket-strapped with narrow pieces of oil silk and over this were laid several thicknesses of gauze dipped in sterilized salt solution and the whole being held in place by a moderately firm gauze bandage.

Three days after on removal of the gauze compresses it was found that every strip had secured a hold, and as case progressed the overlapping edges were carefully trimmed, leaving sufficient of strips to prevent the formation of cicatricial tissue at point where they joined the limits of the circumscribed area.

Fourteen days after operation the healing was complete and up to date there has not been the slightest recurrence of the disease.

CASE OF EMPYEMA WITH LARGE COLLECTION OF PUS TREATED BY ASPIRATION AND DRAINAGE. RECOVERY. S. H. Van Cleve, M. D. *Northwestern Lancet.* In February, 1890, was called to see a young man 24 years of age, who had suffered the previous fall from typhoid fever, being sick three months. Some time before I saw him he experienced a severe pain in the left side, which gradually grew worse, and a swelling made its appearance. Upon examination, I found him suffering from great emaciation, dyspnœa and prostration. His temperature was 103°, pulse 120, and a large bed sore was situated over the sacrum. There was complete

immobility of affected side, absence of respiration and vocal sounds, and flatness on percussion. The heart was displaced to the right of the median line and the left breast presented a fluctuating tumor as large as the normal breast of the female. The following day an operation was performed by first making exploration with hypodermic needle, which revealed pus. Then introducing an aspirating needle attached to the Allen pump, in the seventh intercostal space in the axillary line, six quarts of pus were drawn off. As the pus was gradually removed the tumor grew less in size and disappeared.

As the patient was much prostrated, it was not seemed best to put in a drainage tube at this time, but it was done three days later. The young man was in a better condition, but the chest, however, had refilled. Under antiseptic precautions an incision was made in the eighth intercostal space, axillary line, about four inches long, and the chest washed out with 1/1000 bichloride solution, a double drainage tube inserted and the wound dressed antiseptically. The cavity was washed daily with the 1/1000 bichloride solution, and he was given internally whiskey, cod liver oil, tonics, and nourishing food. The incision closed perfectly in three months, and he made a complete recovery.

Total Extirpation of the Larynx. Dr. Meyer, *N. Y. Med. Jour.* A man sixty-five years of age presented himself at the German Hospital, and upon examination it was found that he was suffering from cancer of the larynx. Tracheotomy was performed without anæsthesia. The superior entrance to the trachea was plugged by an osseous mass, which appeared to be sessile on the entire anterior circumference of the cricoid cartilage. The most of this was removed with the bone scissors and inferior tracheotomy gave quick relief.

The Laryngoscope had revealed an uneven, irregular swelling in the right side of the larynx, which passing the anterior commissure, had begun to invade the left portion of the organ, but the epiglottis was not involved. There being no reason to suspect tuberculosis of the larynx, and as antisyphilitic treatment failed to make any change in the intra-laryngeal swelling, it was decided that the enlargement must be cancerous.

An iodoformized sponge with a thread was pushed down to the tracheal tube and iodoform gauze put on the top of this, and by carefully keeping the patient slightly in Rose's posture, not a drop of blood entered the bronchial system. The epiglottis was not removed.

For three days the upper portion of the trachea was packed but subsequently only a strip of iodoformized gauze was put in. Feeding was accomplished with a rubber catheter, introduced into the œsophagus through the wound. The patient made a rapid recovery

Gunshot Wound of the Pregnant Uterus.—Operation. Recovery, C. C. Bradley, M. D. *Southern Med. Record.*

Eva. M., aged twenty, colored, on Sept. 7, shot herself with a 32 calibre revolver with suicidal intent, the bullet entering about four inches to the right, and on a line with the umbilicus. As she was six months pregnant it complicated matters considerably, but when seen she was suffering but slightly from shock, extremities warm and pulse 100.

An exploratory operation was decided upon and after chloroforming the patient, the probe was passed down between the muscles to Poupart's ligament, but when the position of the thighs was changed and the abdominal muscles relaxed, the wound was found to be a penetrating one, and an incision made in the median line.

The abdomen was found filled with blood and some large clots, and the bullet wound in the right side of the fundus of the uterus, just anterior to the attachment of the Fallopian tube. As there was considerable hemorhage from this wound, it was closed by three sutures which completely checked it, and a careful examination failing to reveal any wound of exit in the uterus or any wound of the intestines, the abdomen was cleansed with hot water and closed with silver wire. A drainage tube was placed in the median line and a second where the bullet had entered.

This operation was completed at 11:30 a. m., and at 11 p. m. she threw off a six months' fœtus, labor being easy. This fœtus had a bullet wound just behind the acromion process of the right scapula, another just above the umbilicus, and the right leg was shattered immediately below the knee.

The wounds healed by first intention, except the tissues at the entrance of the bullet, they being considerably powder-burnt. Patient's temperature never went above 101°, and the drainage tubes were removed on the fourth day, the stitches on the eighth day, and she was discharged from the hospital just four weeks after the operation.

The bullet was not found during operation and must have passed away with the fœtus or discharges, but cannot state this positively; at any rate it has caused no trouble, as the patient has never since presented any evidence of weakening of the abdominal walls.

Simple Method of Removing Foreign Substances from Nasal Cavity.—T. J. Slaton, M. D., *Southern Medical Record.* I have used the following method for the last ten years and can recommend it as very effectual: Place a thin cloth over the child's mouth and apply the finger to the nostril not containing the substance, pressing sufficiently close to the lumen, then put the mouth to the child's and give two or three strong puffs. The substance will fly out in nine cases out of ten. Should the substance not come completely out it can easily be reached with the forceps.

Congenital Occlusion of the Rectum and Anus. T. G. Stephens, M. D., *The Times and Register.* Mrs. S., mother of three children, gave birth to a fourth, of average size, but forty-eight hours afterward it was discovered that the child could not defecate. Upon examination it was found to be a case of congenital occlusion of the rectum and anus. As the family objected to a surgical operation, and the atresia gave rise to considerablo colic and flatulence, tinc. opii. deod. in ⅓ to ½ drop doses every four or five hours was prescribed. The following day consent being obtained for an operation it was immediately performed, the child being in an excellent condition for same, a slight narcosis having been induced by the anodyne taken previously.

Placing the little patient on its back on the leaf of a sewing machine, near a window, making the raphe

a land-mark with a bistoury, the abnormal bands crossing the anal site, which resembled cicatrices, were divided, the instrument passed in for about an inch, reaching the cul-de-sac, which terminated just above the internal sphincter ani muscle. On entering the tube the meconium flowed freely and there was no hemorrage, nor injury done to the urethra or sphincter ani muscle. A dilator was passed into the incision and the parts well stretched breaking down all the abnormal tissues.

The third day afterward the dilator was again used to prevent the parts from adhering, since which time the bowels have never given the child any trouble and it is enjoying excellent health.

Removal of Portion of Liver Filled with Hydatid Cysts by an Elastic Ligature. M. Terrillon.—*La Medicine Moderne.*—A woman of fifty-three years, suffered for considerable period with sharp pains in the right hypochondrium and a diagnosis of her case had been a cyst filled with calculi, but an explorative puncture in the swelling which existed in her right side allowed one hundred grammes of hydatid liquid to escape without making any marked diminution of the size.

Laparotomy revealed a diseased mass, about the size of two fists, occupying the edge of the organ and entirely filled with little hydatid cysts. The diseased tissue was separated from the rest of the organ, which appeared perfectly healthy and an elastic ligature firmly applied at this point. Almost immediately the ligature seemed to make a pedicle, and the part below the compressing force became turgescent. This was fixed outside the body by a few stitches of suture and the rest of the wound closed. The strictest antiseptic precautions were taken. The part of the liver thus pediculated gradually died without producing any general reaction, but as there was a slight rise of temperature in eleven days the pedicle was divided. The wound, which was quite large, cicatrized in thirty days and the patient regained her normal weight and strength, being perfectly cured.

Two Cases of Laparotomy for Penetrating Stab Wound of the Abdomen. N. P. Dandridge, M. D. —*Cincinnati Lancet-Clinic. Case I.* November 29, James Johnston, aged 21, colored. While engaged in a game of "craps" was stabbed in the left side with a long-bladed knife, supposed to be double-edged. He walked several blocks to the hospital, but vomited on the way and suffered severe pain. There was found, two inches above the middle of Poupart's ligament, a wound fully three-eighths of an inch in length, but the urine when drawn with a catheter, was free from blood. After etherizing the patient, a probe was passed through the opening into the abdominal cavity and left in place while a median incision was made below the umbilicus. Some clotted blood was discovered when the abdomen was opened, and almost at once a wound of the intestine, somewhat ragged, which passed through and through the bowel, and within a few inches another through and through the wound of the intestine; and at two places perforations of the mesentery were found. In the mesentery there was extravasated between the layers a considerable amount of blood, and free bleeding still continued. The intestines were partly distended and the openings in the bowel were very large, but no fæcal matter seemed to have escaped.

The openings in intestines were closed with interrupted catgut sutures, one bleeding vessel in the mesentery was tied, and a ligature passed through controlled the arterial supply and prevented further oozing. The wounds themselves were then closed. In passing the needle at one point quite a hæmorrhage occurred, which was controlled by putting a ligature through the mesentery.

When about to return the intestines to the cavity of the abdomen, it suddenly filled with blood and the median incision was immediately carried two inches above the umbilicus, the intestines drawn out of the cavity and by rapidly sponging, blood was found to be oozing from a wound of the peritoneum over the inner edge of the left psoas muscles. Two hæmostatic forceps succeeded in arresting the hæmorrhage, and a large amount of clotted blood was withdrawn from the pelvis and the cavity freely irrigated with boiled water, which showed some blood still escaped. As no bleeding source could be found, a single stitch closed the wound of entrance in the peritoneum in the left side. The intestines were returned, and a glass drainage tube inserted into the pelvis. As it was found impossible to throw a ligature around the forceps still in place, and as we feared some large vein had been wounded, it was decided to leave them in place and bring their handles out through the median incision. Before the incision was entirely closed bloody fluid escaped between the stitches. A few hours after the dressings were perfectly saturated with blood, and the drainage tube was full of thin blood-stained fluid which was removed by a syringe and small tube.

The forceps were taken on the fourth day, and on the fifth the patient's temperature went up to 101° and he experienced considerable pain, necessitating the use of morphia. The bowels were considerable distended, but an enema moved them freely, the temperature fell and the pain disappeared. The patient made a good recovery.

Case II. August 22; patient, adult, in good health, had been stabbed in the abdomen about thirty hours before seeing him, and as he was some distance from his home at the time of the accident he had been taken there on cars.

The wound, about half an inch in length, was situated in left side, within and on a level with the anterior superior spinous process; about it there was some swelling in the abdominal wall, which was supposed to be extravasated blood. He had vomited for several hours, the matter ejected having a decidedly fecal odor. Pulse rapid, and the condition of shock marked with great restlessness, although there was no fever.

The next morning an operation was performed, as it offered a most remote but the only chance. An incision was made over the seat of the swelling about the wound. This had greatly increased, become more prominent, and evidently was at least partly due to intestine in the abdominal wall. This was found lying so superficially that the first incision through the skin wounded the peritoneal coat of the bowel. About six inches of deeply congested intestine was found in the abdominal wall, and evidently strangulated by the opening in the parietal peritoneum through which it had escaped, This opening was enlarged and the entire wound was extended for more than three inches, parallel with the median line. Some twenty inches of intestine was drawn out above and below

the incarcerated portion, but no wound could be found. As the patient's condition was such that a longer search could not be made, the bowel was returned with great difficulty being distended with gas, but not presenting much evidence of fully developed inflammation. The patient did not rally after the operation and died in a few hours.

A post-mortem was held and a small puncture was found in the jejunum, just above the part examined during operation. Although the bowel was greatly distended no fœcal matter had escaped. The evidence of peritonitis was confined to the seat of operation, and the incarcerated portion of bowel could be distinguished by its more intense congestion. The peritoneum had been affected much more from the stab than the skin, the wound on it being transverse in direction and two inches long. The symptoms showed an acute strangulation of the bowel, rather than peritonitis.

Medicine.

Dr. Ira Harris, in Medical Summary of February, says during a tour of Northern Syria in the spring of 1887 he was called to see a girl of 12 years of age, and upon his arrival found a traveling quack to consult with. He appeared to be a man of some natural ability, but his knowledge of the dosage of medicine was very crude. Upon conversation with the man he stated that he had diagnosed worms, and consequently had given the girl seven grains of santonine, with a large dose of castor oil, and a few hours afterward she passed 150 worms. He did not believe this statement of the doctor, but subsequently was shown eighty lumbricoids which she had passed only that morning, being from three to nine inches in length, and as the fact was vouched for by the father and friends, he saw no reason to doubt that this was the truth.

Much of the time the girl was unconscious, but when touched would scream with pain and lapse into insensibility. The abdomen was very swollen, pulse feeble and respirations hurried. Nothing that was done for her proved of avail and she died the same day. There was no doubt but that the intestines had been perforated.

The Treatment of Habitual Constipation.—In speaking of the treatment of chronic constipation, Nothnagel says that the removal of the symptom itself does not suffice; the cause of the trouble must be relieved, and this is tardy peristalsis of the intestines. Massage of the abdomen by diverse measures, as rubbing, kneading, palpation, hammering, etc., is the chief therapeutic measures. It makes no difference whether one begins these manipulations at the sigmoid flexure of the colon and works upward, or whether he commences at the lower end of the ascending colon and works toward the other end. To be effectual, massage must be persisted in for weeks and months. Though it may occasionally yield good results in some patients after a few weeks, it is yet advisable, before instituting treatment, to let the patient know that a long period of time will be necessary before he can be pronounced cured. Many a case is benefited by the use of auto-massage at the time of defecation.

Another valuable therapeutic measure is faradization of the abdomen, which Nothnagel prefers to galvanization, as advocated by Leubuscher, in which one electrode is introduced within the rectum, and the other is placed anywhere on the surface of the abdomen. In faradization both electrodes can be used on the outside. Steady regular walks should be advised; during inclement weather in-doors gymnastics must be practiced. The patient must not lose courage too soon; time and patience are necessary in order to get all the benefit possible from massage, faradization and gymnastics. Let such patients drink a glass or two of cold water, or of some mineral water, in the morning before breakfast, till their bowels become more regular. Purgatives must never be relied upon. Enemata may be used. Small glycerine injections tend to make irritable patients more tractable.—*Wien. Med. Presse*, 10, 11 and 12, 1890.

Medicinal Qualities of Nutmegs.—J. V. Shoemaker, M. D., *Medical Bulletin*. The medicinal qualities of nutmegs are worthy of considerable attention on account of their value in the treatment of diarrhœa, many cases quickly yielding to the administration of half a drachm in milk. Insomnia may be effectually relieved by them when opium fails and chloral is not advisable. It is also a sedative in delirum tremens and can be given with safety and marked benefit. An excellent ointment for itching and irritable hemorrhoids is composed of two drachms of powdered nutmegs, one drachm of tannic acid and one ounce of lard.

Case of Ulcerative Endocarditis. C. A. Veasey, M. D. *Medical and Surgical Reporter*. A woman twenty-five years of age, presented herself at Jefferson Medical College for examination and treatment, and stated that three weeks before she had become greatly frightened, during a fire in the neighborhood of her home, being seized at the time with palpitation of the heart, followed by paroxysms of præcordial oppression and pains of great intensity, shooting into the left axilla and down the left arm, with dyspnœa of the most painful character. After her admission to hospital she experienced the same paroxysms, some days having as many as eight in the twenty-four hours, and then there being three to five days without an attack.

When first admitted to the ward she could walk, but in the course of the week was compelled to keep her bed, and the greater part of the time had to remain in a half-sitting posture on account of the great dyspnœa with which she suffered. The severe cough was at first followed by scanty expectoration, but this was soon superseded by a profuse muco-purulent expectoration, frequently streaked with blood.

External warmth was applied almost constantly on account of her chilly sensations, the finger nails were blue, tongue red and swollen and marked indentations by the teeth. There soon developed a severe and excruciating pain in the region of the right kidney, the abdomen being quite tender to the touch. The appetite was very poor and patient could take nothing but liquid foods, and only a small quantity of stimulus. Upon her entrance to hospital she stated she was six months pregnant, but her pulse was always so rapid that the fetal heart sounds could not be distinguished with absolute certainty.

The examination of her heart showed loud mitral systolic murmur, transmitted to the axilla and to the angle of the scapula. Murmur marked seeming to take

the place of the first sound of the heart, second sound changeable, sometimes pronounced and at other times feeble. Area of cardiac dullness was increased in both directions, impulse diffused, and pulse feeble, irregular and rapid. Over the lungs percussion dullness was found in spots, respiration feeble and rapid, and rales were heard in various parts of the lungs; there was no pulse in the right arm at any point. Urine scanty, of a yellowish red color, acid, with a specific gravity of 1.030, and on boiling deposited albumen of about one-half bulk, no sugar and few pus cells and hyaline casts were found on microscopical examination.

The patient died in fifteen days and at the autopsy the pleural sac was found adherent to the chest wall on both sides, the lungs filled with miliary tubercles and infarcts at different points, some of which had caused rupture of the vessels, adjoining tissue having become œdematous and soft. The heart was largely hypertrophied, the left side firmly contracted, while the right contained a clot. One leaflet of the mitral valve was entirely absent, and on that side were vegetations which covered a space the size of a dime, about a quarter of an inch deep and showing ulceration.

All the organs in the abdominal cavity had congested, there having been peritonitis with adhesions on right side, liver and kidneys full of miliary tubercles and infarcts, spleen enlarged, softened and also full of miliary tubercles. The uterus contained a fetus about seven months old.

The shock undoubtedly brought to light symptoms of heart disease, which before had been latent.

Spontaneous Rupture of the Uterus.—Dr. E. F. Pla. *The Lancet.*

Patient married, 21 years, had been pregnant five years before, which had terminated satisfactorily, since which time had had no illness. She was suddenly seized with intense pain, became cold and expired. Upon a post-mortem examination there was found no marks of violence, but opening of the abdomen cavity revealed a quantity of blood and coagula, also the amnion containing a four months fœtus, with umbilical cord and placenta. There was an irregular rent, three inches in length across the fundus of the uterus, through which this had escaped. The cavity contained coagula, but no pus or evidence of inflammation in the pelvic organs. A microscopical examination of the uterine wall showed that in the region of the rupture the muscular coat was practically absent, represented only by a very few attenuated fibers; the mucous coat also was absent, replaced only by fibrous tissue, without glands and with scarcely any vessels. The appearance was that of a cicatrix, but no history of injury or disease could be obtained. The placenta was perfectly normal.

Coal Oil Poisoning. H. S. Crockett, M. D.—*Medical World.*—My son aged sixteen years, employed in drug store, while engaged in transferring a barrel of coal oil into a tank, experienced some pain in the stomach, with slight nausea and headache. Upon his return home for supper he ate but little, and went back to the store. In half an hour he came to the house complaining of the same pain and nausea, and accompanied by a disposition to fall backwards. His pulse was considerably accelerated and as I was at a loss what to prescribe for him, suggestd that he walk in the yard, thinking the oil would be more rapidly eliminated from the system if he would take exercise. He began to feel faint, was obliged to lie down in the yard, and when I reached him, found his pulse very feeble and skin pale. About an ounce of whiskey was administered, mustard plasters applied to wrists and over heart and he was assisted to bed, but was immediately taken with something like an epileptoid seizure, with marked episthotonos which, however, lasted only a few seconds.

Bromidia was given and as his pulse increased in volume and frequency with corresponding increase of temperature, ice water, was applied to his head which appeared to give him great relief. After two hours a second dose of Bromidia was given. Large quantities of urine passed which smelled strongly of coal oil. He improved slowly, but it was several days before he was able to be around. The oil was undoubtedly introduced into the system by inhalation.

Absence of Bladder, Double Uterus, Vagina and Os with the Absence of External Genital Organs. I. W. Maclachlan, M. D.—*N. Y. Medical Times.*—Fannie S., aged 20 years, servant was admitted to the hospital, June, 1890; troubled with incontinence of urine, which dribbled from two openings in the lower abdominal parietes, directly over the vagina. Owing to the affliction she was unable to retain a place in families, especially so, as during the last few years the urine passing into the vaginal orifice caused a leucorrhœal discharge. She began to menstruate at fifteen years, periods regular since that time, but I am unable to state whether the flow came from both halves of the uterus or not.

There was a constant and severe pain in the lumbar region and right side, aggravated at the menstrual periods, also obstinate constipation, sleeplessness, loss of appetite, extreme thirst, constant nausea, vomiting incontinence of urine with partial retention during the last two weeks of her life. The analysis of the urine showed the quantity greatly diminished, large amount of albumen, pus cells, blood and tube casts. For two or three weeks a soft rubber catheter had been placed in the orifice of the right ureter to keep the parts dry but this suddenly disappeared and I was quite sure it had passed into the ureter as the pain on that side was much aggravated. One week later, however, it made its appearance in the orifice and was drawn out by the nurse.

After death a post-mortem revealed acute inflammation of the stomach and small intestines, with no trace of the bladder ever having been present. The ureters were normal in length and passed through the abdominal parietes between the pubic bones. They were two inches apart and one inch above either side of the vagina; orifices the size of goose quills; right ureter greatly distended and serving as a partial reservoir, capable of holding several ounces of urine; left ureter varying from one-fourth to one-half inch in diameter.

The right kidney was filled with small abscesses containing blood and pus, a dark pigmentation throughout and weighed six ounces, while the left only weighed three ounces, with capsule adherent. The center of the left kidney was contracted to one and a fourth inches in circumference with several small abscesse similar to those in the right. The pyramids of both kidneys were destroyed and there was a very peculiar malformation of the pelvis. The pubic bones were apparently normally developed, but disconnected

from each other by a space of five inches, causing a wide separation of the limbs and giving the patient a peculiar gate when she walked.

The external genital organs were absent, and the complete double vagina was divided by a longitudinal partition or thin septum of mucus membrane, the entrance being through a small fleshy band, the edges of which did not meet. The developement of both vaginal canals was rudimentary and of equal size, one and one-half inches in length, and the circumference quite small. There was a cervical portion and an opening into each vagina. The uterus was two horned, with a lateral direction to each horn; the distance across from one fundus to the other measuring three and one-fourth inches. The weight was one and one-half ounces, and length of each cavity two and one-fourth inches. Each os was slightly smaller than normal and the uterine sound when introduced passed through the os easily, and apparently through a normal cervical canal. The fallopian tubes, ovaries and ligaments were normal, there being one tube and ovary for each uterus. The absence of the bladder was undoubtedly congenital.

Hemorrhage Following Tonsillotomy. — Max Thorner, M. D., *Cin. Lancet-Clinic.* A young man who had been under treatment for chronic otitis externa, had enormously enlarged tonsils, which gave him a large amount of throat trouble. As his condition gradually became worse, they were removed with Physick's Tonsillotome, and as the hemorrhage was more than usual, I gave him the tanno-gallic acid gargle to be used at home if necessary. Eighteen hours after the operation they still were bleeding and he looked very pale, skin was cold and pulse small. Examination showed the left tonsil in good condition, but the blood constantly oozed from the right one and upon my trying to stop this the patient fainted, but when consciousness returned the bleeding had ceased, although for many weeks afterward the young man was anæmic.

The *Med. World* for January says:

High heels are said to favor displacement of the kidneys, especially when associated with the weight of clothing fastened alone to the fashionably constructed waist. High heels increase the lumbar curve, and incline the lower loins in a forward direction. The *psoas major* and *quadratus lumborum* muscles bulge forward; the latter is pressed outward, and the kidney is thus displaced, and puts the peritoneum on the stretch. Then the conditions are still more aggravated by the evil which they have set up, and the displaced kidneys have no chance to regain their normal position.

Eye and Ear.

Rupture of the Membrana Tympani by Injection of Warm Water into the Auditory Canal for the Removal of Impacted Cerumen. S. Latimer Phillips, M. D. *Atlanta Medical and Surgical Journal.* A man 54 years old, fairly good health, experienced for several weeks dullness of hearing on left side and upon examination canal of that side was found to be of average size, but contained considerable amount of hardened wax. The right ear was normal as to hearing, but left was tick of watch at sixteen inches. A small rubber ball syringe, holding about an ounce and a half of lukewarm water was used to syringe the auditory canal and after filling same several times and gently forcing it into ear without bringing the wax, a little more pressure was used. Suddenly something seemed to give way and the water poured from the patient's left nostril, causing a peculiar sensation in the ear on that side, although there was no pain worth speaking of. The wax was loosened and removed without trouble.

Upon examination the drumhead was found almost intact, congested in every part save the posterior superior quadrant. From the top of the malleus, running down and back to the bony wall was a thin line of blood which showed the course of the rupture, and in its immediate region there were a few drops of blood. There was no gaping of the wound, and when hearing was tested with watch it was found to be normal, the eustachian tube freely opening.

An antiseptic cotton wool plug was placed in the canal and patient was directed to use warm water if he experienced any pain. The next day, although he had felt no uncomfortable symptoms, the hearing was reduced to watch tick at fifteen inches, which was less than before the removal of the wax. There was some mucous discharge from the ear and the opening in the membrane was wedge-shaped with its apex at tip of malleus through which the swelled and congested mucous membrane lining the drum could be seen. A slight burning followed the application of a few drops of 95 per cent alcohol and at night he noticed tinnitus in the ear.

His hearing began to improve gradually but unfortunately in a short time he had an attack of malarial fever and although strongly advised against the use of quinine, in three weeks time had taken 240 grains. After recovery from fever he had an operation performed for removal of hemorrhoids, and I did not see him for two months, but at the expiration of that time I found his hearing normal, and the opening in ear had closed leaving only a thin line of scar. Several months after the membrane gave way at this line from vigorously blowing the nose, but the parts united again without treatment. Since this last accident his condition has been satisfactory.

Foreign Bodies in the Eye.—Prof. David Webster, *Medical Record.*

1. Always search carefully for foreign bodies on the cornea and on the conjunctiva in cases of inflammation of one eye coming on suddenly and without other apparent cause.

2. Remove them, when found, with as little injury to the surrounding parts as possible.

3. When a foreign body is lodged within the eyeball, especially in the ciliary region, the patient is in danger of losing the fellow-eye by sympathetic inflammation, whether the foreign body is removed or not. The removal of the foreign body greatly lessens such danger.

4. If the foreign body has already destroyed the sight the eye should be enucleated without delay.

5. If sympathetic inflammation sets in, the sooner the eyeball containing the foreign body is enucleated the better will be the patient's chances of retaining useful sight.

6. If the fellow-eye is attacked with symptoms of severe *sympathetic irritation,* the eye containing the foreign body should be enucleated without waiting for actual sympathetic inflammation.

7. The magnet is serviceable in cases where the

foreign body is of attractable material and *can be seen*, and is not firmly embedded in the eye-wall, nor encapsuled with organized lymph.

8. Where the foreign body is small and its lodging-place uncertain, the introduction of a magnet into the eyeball is generally to be deprecated.

9. After the foreign body has been *extracted* from the interior of the eye the patient should be warned that sympathetic inflammation may occur, and, in such a case, should not be neglected.

Book Reviews.

Ointments and Oleates, Especially in Diseases of the Skin. By John V. Shoemaker, A. M., M. D., Professor of Materia Medica, Pharmacology Therapeutics, and Clinical Medicine, and Clinical Professor of Diseases of the Skin in the Medico-Chururgical College, of Philadelphia, etc. Second edition; revised and enlarged. Philadelphia and London. F. A. Davis, publisher, 1890.

The title and matter of this book are original, and the reader will find many practical and interesting points. The use of ointments and fats; their history and evolution from the time of the ancients; effects on temperature, etc., and injury done by the use of impure fats, are paid especial attention to. Lanolin, the fatty derivative from sheep's wool is given considerable space, and the investigations and experiments covering a period of ten years, are of considerable value to the medical profession. The second edition gives the formulæ and uses of the official ointments of different countries, and shows a depth of research and thoroughness of work which recommends the book to all.

Text-Book of Hygiene. A Comprehensive Treatise on the Principles and Practice of Preventive Medicine. From an American Standpoint. By George H. Rohe, M. D., Professor of Obstetrics and Hygiene in the College of Physicians and Surgeons, Baltimore, etc. Second edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. Philadelphia and London: F. A. Davis, Publisher, 1890. Price, $2.50, net.

In the second edition of this work the author has added fully one hundred pages and many illustrations. Every matter which is related, even ever so indirectly, to hygiene, is treated of in a plain way which cannot fail to be understood by every one. The essential facts upon which the art of preserving health is based, are presented to the reader in language plainly understood by every one. The germ theory of disease is discussed. Contagion and infection, antiseptics, disinfectants, deodorants, vital statistics and quarantine in the history of epidemic diseases are all discussed. The book is meant for the general reader, rather than the specialist, but many members of the medical profession can find much practical information upon points of especial value.

Prof. Koch's Method to Cure Tuberculosis. Popularly treated by Dr. Max Birnbaum. Translated from the German by Dr. Fr. Brendecke. With an Appendix, being Prof. Koch's first communication on the subject. Translated from the *Deutsche Medicinishe Wochenschrift*, and Explanatory Notes by the Author. Milwaukee, Wis.: H. E. Haferhon. 1891. 8vo. Pp. 105. Price: Cloth, $1; paper, 75c. (From Publisher.)

The work has just made its appearance and while it does not give the chemical composition of the "lymph" has many facts of value to the profession. The publication is rather premature in the statement as to what the injection of the fluid can accomplish, and which has certainly not been sustained by the report of cases under treatment. However the book is very entertaining reading to the doctor and patient.

Modern Treatment of Headaches. By Allen McLane Hamilton, M. D. No 6 of "The Physicians' Leisure Library." Paper, 12mo. Pp, 122. Issued monthly. $2.50 a year, single copy 25 cents. Geo. S. Davis, Detroit, Mich., Publisher. 1890.

This little book is of value as special reference and treatment is given for one of the commonest and yet sometimes most intractable of symptoms. A proper study of the work will give much information to all practitioners.

Compend of Diseases of Children. Especially adapted for the use of medical students. By Marcus P. Hatfield, A. M., M. D., Professor of Diseases of Children, Chicago Medical College, etc. With a colored plate.. P. Blakiston, Son & Co., Philadelphia. 1890. From publishers, cloth. Price, $1. Interleaved edition for taking notes, $1.25. 12mo. Pp. 185.

Students attending lectures or preparing for examination, before graduation, or for the practitioner who wishes a book of authoritive information, we would recommend No. 14 of the Quiz Compends as one of the most serviceable publications at their command. A great deal of practical knowledge in the study of pediatrics is embraced in a small space and to the busy professional man this is truely valuable.

Auscultation and Percussion. By Fredrick C. Shattuck, M. D., Professor of Clinical Medicine in Harvard University, etc. 1890. George S. Davis, Detroit, Mich. Paper, 12mo. Pp. 121. Price, 25 cents.

Dr. Shattuck has here presented a subject of the greatest importance, for the physical examination of the chest and the attainment of the knowledge of the important organs contained within it, is of the greatest benefit in diagnosing the diseased conditions of the human system. This book is intended for the advanced student of medicine or the practitioner rather than the beginner. The plates will serve to refresh the memory as to space occupied by the thoracis viscera and their mutual relations.

Post-Mortems. What to Look for and How to Make Them. By A. H. Newth, London. Edited with numerous notes and additions by F. W. Owen, M. D. formerly Demonstrator of Anatomy, Detroit College of Medicine, cloth, 12mo, post-paid $1.00. The Illustrated Medical Journal Co., Publishers, Detroit, Mich.

A very carefully written book, replete with information that every person interested in anatomy should possess. It presents in a tabulated way all the important conditions of an organ met with in post-mortem examinations, whether in health or disease. It is the only brief work of the kind now at the command of the student, and as such will be of great use especially to the country physician, who makes autopsies infrequently and the medical student who is occasionally in the dead house of the hospital.

Structure of Central Nervous System. By Ludwig Edinger, M. D. Translated by Willis Hall Vittum, M. D., St. Paul, Minn. Edited by C. Eugene Riggs, A. M., M. D., Professor of Mental and Nervous Diseases, University of Minnesota. Member of the American Neurological Association. Published by F. A. Davis, Philadelphia. Price $1.75 net.

This work is made up of a series of twelve lectures delivered before an audience of physicians and afterward published in book form. So popular have they been that the work has been entirely revised and embodied with the researches of the last four years. Some of the chapters have been completely rewritten. Continued investigations led the author to modify his views in many respects and the needs of the practitioner have been complied with, in that the number of cuts has been increased and the description of individual regions made more exhaustive.

A Dictionary of Practical Medicine. By various writers. Edited by James Kingston Fowler, M. A., M. D. Fellow of the Royal College of Physicians, etc. Philadelphia. P. Blakiston, Son & Co., 1012 Walnut Street. 1890.

This book is out of the usual line followed by dictionaries, inasmuch as it is both a dictionary and a treatise on practical medicine; the subjects being arranged as far as possible in alphabetical order. The editor has aimed at practical utility in the selection of subjects and the order of description. Diseases peculiar to women occupy a prominent place and each is dealt with by giving an account of the symptoms, course, diagnosis and prognosis followed by that of pathology, morbid anatomy and ætiology. The dosage of drugs receives attention and exact dose and combination of various drugs recommended in most cases being given.

Forty-two names are among the contributors to this work, all occupying high places in the profession. The book fills a place in medical annals which has long been vacant.

Items of Interest.

A child has recently been born in China with four eyes.

Freckles are said to be speedily removed by washing the face in watermelon juice.

There has been about fifty persons treated with Koch's lymph in the Milwaukee hospital, and but one death so far has occurred. The results have been quite satisfactory.

Gunpowder stains of the face may be removed by painting with biniodide of ammonium and distilled water, equal parts; then with dilute hydrochloric acid, to reach the tissues more deeply affected.

Dr. Bramsford Lewis, of St. Louis, Mo., leaves for Europe in April. He will do special work in genito-urinary diseases in the hospitals of London and Paris. He will return to St. Louis the coming fall.

The University of Pennsylvania has recently been the fortunate recipient of $50,000 for the erection of a building for hygienic instruction. It was donated by Henry C. Lee, and when the structure is finished will be the finest of its kind in the world.

A case is on record of inoculation of measles by a girl opening a small blister on the finger of another girl, seven years old, the first being taken sick with measles the following day. Nine days afterward the second was seized with cough and hoarseness, sore throat and fever, and the back of the hands turned red, increasing and spreading until the entire body was covered with a measle-like exanthema. From around the blister a dark red streak extended to the shoulder. After a week the exanthema paled and the child recovered.

The Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis, Wednesday, Thursday and Friday, October 14, 15 and 16, 1891. A large attendance, a valuable program and a good time are expected. The members of the medical profession are respectfully invited to attend. C. H. Hughes, M. D., President, 500 N. Jefferson Avenue, St. Louis; E. S. McKee, M. D., Secretary, 57 West Seventh Street, Cincinnati; I. N. Love, M. D., Chair. Com. of Arrange., 301 N. Grand Avenue, St. Louis.

Wit and Humor.

"Medical science has made such a progress," said the doctor when speaking of his profession, "that it is almost impossible for anybody to be buried alive now." Then he wondered why everybody laughed.—*Boston Courier.*

"I'll just tell you what it is," remarked a fat, jolly old soul to her companion as the street car rumbled along, "the doctors kin say what they please, but I know it's just flyin' in the face o' natur' to bring a baby up on a bottle. You know Sally Ann Jimson, what lived next door to us?" "Yes," assented the other. "Well, she tried to bring her baby up on milkman's milk, and it died of water on the brain.—*Philadelphia Record.*

Mrs. Malapropos—"How is your papa getting along, my dear?" Miss Precise—"Oh, he's convalescent." Mrs. Malapropos—"My, oh my! How unfortunate he is, to be sure! First he had newmoney, then plumbago, and now convalescent." Miss Precise—"How do you feel, Mrs. Malapropos?" Mrs. Malapropos—"The doctor says I've got two buckles on my lungs, and I'm going down to the druggist's now to get some Brown's Bronical Breeches for my henflewendways."—*Drake's Magazine.*

Anxious mother—"You think he is out of danger now, doctor? He will get well?" "No doubt about it at all, madam. The amputation has been completely successful." "And I warned him, oh, so carefully, to let toy canons alone. Doesn't it look like a judgment on my poor boy?" "It does look like a judgment, certainly; and yet such things sometimes prove to be blessings in disguise. It is not for us to repine. One hundred dollars, madam. Thanks."

City cousin—You ought to go in for physical culture, Jennie. Athletics, you know, and that sort of thing.

Country Cousin—Perhaps it would be a good idea, but after I have milked the cows, cooked three hot meals, made the beds, and split the kindling for next morning, I feel a little too tired to do anything more.—*Indianapolis Journal.*

WHERE HAS 'OPKINS GONE?

The Hospital, of England, states that nurses in hospitals are rather apt to lay too much stress on the advantages received by the patients and their duty of thankfulness. Witness the following true story: Chaplain—So poor Hopkins is dead. I should have liked to speak to him once again and soothe his last moments; why didn't you call me? Hospital Orderly—I didn't think you ought to be disturbed for 'Opkins, sir, so I just soothed him as best I could myself. Chaplain—Why, what did you say to him? Orderly—"'Opkins," sez I, "you're mortal bad." "I am," sez'e. "'Opkins," sez I, "I don't think you'll get better." "No," sez'e. "'Opkins," sez I, "you're going fast." "Yes," sez'e. "'Opkins," sez I, "I don't think you can 'ope to go to 'eaven." "I don't think I can," sez'e. "Well then, 'Opkins," sez I, "you'll go to 'ell." "I suppose so," sez'e. "'Opkins," sez I, "you ought to be wery grateful as there's a place perwided for you, and that you've got somewhere to go." And I think 'e 'eard me, sir, and then 'e died.—*Ex.*

Western Medical Reporter.
A Monthly Epitome of Medical Progress.

VOL. XIII. APRIL, 1891. No. 4.

ORIGINAL ARTICLES.

A True Physician.*

BY M. W. TANQUARY, M. D.

MR. CHAIRMAN, THE HONORABLE FACULTY, FELLOW CLASSMATES, LADIES AND GENTLEMEN:—It is very unfortunate that custom has made it necessary that one member of each class should deliver an address on this occassion; unfortunate for the individual as it causes him greater uneasiness while awaiting his doom here than it does to await the report of the final examinations; very unfortunate for the audience as you have to endure the torture of listening to the "young saw-bones," as he is frequently called, while he saws the air with his ungainly gestures and ungrammatical phrases, but I am sure you will realize that speech-making is not a medical students business and that while some men may speak best in words that a "True Physician's best oratory is his deeds."

"Medicine is my wife, science my mistress, the grave my study," were the terse utterances of one of the truest physicians the world has ever known, one of the morning stars of the medical profession in this country; the vital words of a man whose memory is an inspiration to medical students, and whose name will be engraved on the rolls of time to be forever praised by those who devote themselves to the noble science which our great prototype loved so well and so much advanced by his varied learning, large experience and rare skill.

Any student of medicine who is impelled by the same enthusiasm, which flamed in the heart of this great man, if possessed of the mental endowments which warrant his adoption of the profession, will achieve success, for enthusiasm is the genius of success, and will rise to the front ranks though the goal may be reached only after years of assiduous study, self-discipline and experimental knowledge.

It is accepted as a universal fact, in medicine, as in all professions, that in order to be successful, one must possess intense personality, must believe in himself, must realize that he is an individual unit of the living world. The stars in their courses fight for the intrepid and self-asserting souls.

The men in our profession who have attained national stature have been of the mould and fiber that make dominating figures in their time; who have used the alembic of thought and the crucible of reason to broaden their mental horizon and enlarge their realms of knowledge, until they have an insight of human ailments and ills beyond the scope of theory and speculation, beyond the diagnoses of text-books and the curriculum of practice.

A liberally educated physician, while he will always cherish fond recollections of his alma mater and hold in sacred memory the didactic instructions received from his faculty, will have the courage of his convictions and intuitions, and when these antagonize the learning mixed with the must and mould of bygone times, will discard the straight jacket of a war-worn system of practice and the grooves of common experience, and following the luminous course of common sense will solve for himself the mysteries of human life and human pain.

The great historian, Gibbon, has said that every man who rises above the common level, receives two educations; the first from his instructors, the second the most personal and by far the most important from himself.

We master the alphabet of the medical science in the schools, but the learning obtained from large experience is the great power that lifts us to a higher plain of professional knowledge.

Patti has well said: "Too many wish to shoot like rockets into the zenith of the sky of success; one must be a workman at his trade before he can be an artist in his art."

The High Priests of medicine have not only possessed that wealth of knowledge gained by years of experience, but have deeply realized the great responsibilities that were resting upon them while they were guarding for their patients the brittle thread of life. They have truely been the vestals that attended the divine fires in the temple of humanity.

The true physician, he whose life is devoted to the afflictions of his fellows, possesses kindly and love-inspiring qualities, the finest fibers of his nature thrill in sympathy with human suffering; he who combines these attributes with a cultured intellect and that most essential quality, industry, will become a power in his profession.

One of our most beloved and most able professors has said that the main feature which causes the difference between an ignoramus and a man of learning between failure and success, is industry, that the race is not always to the swift nor the battle to the strong. (Quine).

Sympathy is active in its nature, compelling us to exert ourselves for the relief of others, and the practitioner whose sympathetic heart carries the cares of his patient, will be courted and praised while living, and when dead the fragrance of his memory will float beyond the generation which shares with him the communion of the grave.—"To live in hearts we leave behind, is not to die."

An old saying has it that, "In time of sickness no one is more called upon than God, and the doctor; while in time of health, no one is less cared for." In this Christian City of Chicago, it might be well to include only the doctor in this saying.

While it is true that the medical man is too often neglected when the high noon of health energizes the activities of enterprise and business, yet the faithful earthly physician, whose good deeds praise him when he is a ministering spirit among the sick, is ever cared for by recovered friends around him, for the flame of friendship is always fanned by the wing of healing. Scott's immortal tribute to woman's sympathy. "When pain and anguish wring the brow, A ministering angel thou," has like pertinence when applied to the faithful and compassionate physician.

It is said that actions speak plainer than words, sometimes they have greater effect than medicine; doubt and discouragement spoken or looked in the sickroom, deplete the spirit more than blood-letting

* Valedictory address delivered at Grand Opera House, Chicago, March 24th, before class of 1891, College of P. & S.

weakens the physical system; the serene voice of hope and not the sigh of despair should fall upon the ears of the sick; the blue heaven of cheerful words should canopy the sick bed; the sunshine of assurance and not the gloom of doubt should illumine the patient's couch.

Cheerfulness is contagious, but not due to microbic origin and has no period of incubation, while encouragement is an antipyretic which cools the brow, begets hope and in time of sickness is an anchor of the body, as in faith it is an anchor of the soul. The true and earnest physician who magnifies his high calling by personal exemplification of the best attributes and graces of human nature, realizes that life has higher aims than heaping the dust of wealth from year to year. His love of the profession and his desire to keep pace with the marvels of medical research and of surgery, give tension to his intellectual fiber, as his kindly qualities of heart give tension to his moral and social fiber, and thus is rounded into harmonious complement, "the full stature of man."

We may well be proud of our profession. It was founded in the best instincts of man, and is intrenched in the most noble memories and traditions. Illustrious men of every age and clime have espoused the art of healing; and the great philosophers of antiquity theorized about the anatomy of the human body, and indulged in homilies as to its functions and hygiene.

If we call over the roll of those who have been the true and unselfish benefactors of their race, of those who have bettered the physical conditions of mankind, of those who have soothed and cured human ills, eminent medical names brighten the annals of all ages, and from Æsculapius and Hypocrates "the long line comes gleaming on."

In this century and in this country, the sky of fame blazes with many medical stars of the first magnitude; and in this imperial city of Chicago, some of the profession have achieved a success that has made them colossal figures in the realm of medicine.

This Garden City of the world has reason to be proud of the great men and good women it numbers in all the learned professions, but it has never counted among its living or dead, nobler and truer men and women than some of those connected with its various medical institutions.

TO THE FACULTY.

Members of the class of '91, I am sure I echo your united voices, when I make profound acknowledgment to the faculty of the College of Physicians and Surgeons for their uniform kindness and consideration in all their personal relations with us, and for the patience they have ever shown in trying to lead our feeble minds from darkness into the light of the medical science. Though you have carried us through the course and to-day are to turn us out to the mercy of a not over-confident public, which will probably need more sympathy than we will; however, your responsibilities to us are not entirely ended; for as a parent is, to a great extent, responsible for the failure or success of his child, thus also is a college greatly responsible for the future of its students. And as each new failure is added to the black roll, the fault is generally not so much in turning out a poor man, as it is in taking in a student who is wholly unprepared. "Present company is always excepted," but many colleges seem to put more stress on the *fees* than any other portion of the preliminary requirements. May the time soon come when all medical colleges will reverse the time for "plucking," more importance being given to the preliminary qualifications than to the final examinations; and when the time required for graduation will be double that which it now is, thus elevating the profession, raising the standard of our schools and protecting an overquacked public.

Long live the P. & S. College and may the future hold stores of success and prosperity for it that will reasonably compare with the ability and manliness of its faculty!

In the great Book of books, the one with which too many (except medical students) are not familiar enough, it is written that it is more blessed to give than to receive, by this standard, your blessings should be great, for truly you have given much and received little.

TO THE JUNIORS.

Allow me to extend to you a cordial welcome to the front row at the clinics and to our familiar seats in the lecture room. May you fill them with greater dignity and more ability, especially at quizzes, than did your predecessors.

To-day you advance one more step in rank and responsibilities. Being the ranking generals now, it becomes your duty to guard carefully the welfare of the college, and ever to be ready with fond hearts and willing hands to gently lift any D. J. who may crowd himself into the front row, to a more elevated position where the air is purer and where he has more room for the expansion of his young ideas.

This will be our last opportunity of addressing you under your old familiar title.

And now D. J's. (an abbreviation for Dear Juniors) to one and all, adieu.

May you have good luck, without any pluck, goodbye to you.

FELLOW CLASS MATES.

We are assembled for our last roll call, that one to which we have all looked forward with fond hopes that when the last roll is called, we'd be there. I dare say no one has arranged with his friend to answer "here" to his name to-day; in fact, that habit of some other fellow answering "here" to your name at roll call, was out of style before our time, that dating back to about the school days of our honorable Professors.

There have been many pleasant times in our college life which we shall not soon forget, from our rapid ascent up the elevated plain in the "sky parlor" where we soared high above the shoulders of our fellows, and usually the higher we got the sorer we became, and the more we needed a sower, or rather a tailor, on down the long line of fond remembrances to the famous bumping post, the solidity and endurance of which I am sure some of us shall never forget.

To-day we have cast upon our shoulders the greatest responsibilities they have ever borne. We go forth many of us as children to fill men's places. Some few may go forth to success, but probably the greater number of us are going forth into the world to starve for the next ten years, or to simply exist on the fat we have accumulated from our sumptuous? boarding houses.

Some of us will probably walk through life's race,
Others may drive some old roan,
But a few, I am sure, will have ponies enough,
If they only had the muscle and bone.

If we would obtain the majesty of success, if we would emblazon victory upon our shields, let us keep abreast of the times in our researches, realizing that the science of medicine is progressive; let us strive for a position in the front ranks of the army of medical men.

Let us cultivate kindly feelings toward all classes, remembering that, "He who would have friends, must show himself friendly."

Let us follow, as near as human frailty and imperfection will permit, the kindness and uprightness of Him, who as man, was the truest gentleman that ever walked in this world; and, who, as God, was the greatest Physician that ever blessed and glorified humanity.

Land Marks in the History of Medicine.

An Address delivered at the Ninth Annual Commencement of the College of Physicians and Surgeons of Chicago.

By F. E. Waxham, M. D., Chicago.

Mr. Chairman, Ladies and Gentlemen, Fellow-Students and Fellow Physicians:—This is a world and an age of progress. Science and learning have been advancing at so rapid a pace; new inventions and new discoveries have been crowding one upon another so closely that we are lost in the contemplation of what has been attained. Man's inventive genius has been displayed alike on land and sea. Palaces float upon the mighty deep, conveying the traveler quickly, safely, in comfort and in luxury from shore to shore, replacing the slow and inconvenient methods of yesterday. Upon land steam and rail have replaced the slow-going coach, and electricity, that silent, unseen, mysterious force has been subdued and made obedient to the will of man; at his command, the electric spark goes flashing around the world.

The telegraph, the telephone, the electric light, the electric motor (and even the flying machine) are all marvels of this age. In every department of science the watchward has been onward and upward, and in the words of Galileo "The World moves."

Has the great science of medicine kept pace with the advances made in other departments of learning? It is often doubted, and the importance of these annual commencements is not always appreciated and too frequently our graduates are referred to as "batches of saw-bones turned loose upon suffering humanity."

Suffering humanity may well be thankful for these annual occasions. Suffering humanity may well rejoice that the ranks of the profession are so freely supplied by these young and cultured gentlemen, who by years of toil and study are equipped for every emergency, and who have an aim, a purpose and an ambition to serve you faithfully and well. It is by these yearly accessions of young and energetic men to the ranks that the profession is ever kept strong, active and progressive.

Is the profession of medicine abreast the times? Look at the brilliant array of immortal names of those who have conferred eternal blessings upon mankind and answer. In that long galaxy are to be found names that will never perish, but that will pass down from generation to generation as benefactors of the human race; for there have been Napoleons in the field of medicine as well as upon the field of battle. As the magnificent engine of to-day with its train of palace cars, ready for its flight across the continent compares with the ox team, so does the medicine and surgery of to-day compare with that of other days.

Away back in the dim history of medicine the sick or their proxies were taken to the temples of Æsculapius, and after performing sacred rites and ablutions, were made to sleep upon the hide of some sacrificed animal and the appropriate remedies for the cure of the disease were to have been indicated in the dreams of the patient.

In the days long gone by, anatomy, physiology and pathology, were but little understood; and we are informed that the blood-vessels contain mucus and bile; we are informed that the bile is the seat of courage, the lungs the origin of the voice, the spleen the seat of reason, the liver the granary of the soul, and the stomach the resting-place of the mind. In the ages past, the wise physician consulted the stars and the constellations in order to make a correct diagnosis and to apply appropriate remedies. To-day instead of consulting the heavens, he takes his stethoscope, microscope and other instruments of precision, and by the most rigid examination every organ of the human body is subjected to his scrutiny, and obscure indeed must be the disease that escapes detection.

In other days, instead of the elegant and effective preparations now prescribed, the most ridiculous and nauseating remedies were administered; such as the "Essence of Man's Brains," "Elixir of Mummie," "Quintessence of Snakes, Adders and Vipers," "Spirit of Human Skulls," "Viper Wine," and the like. At a later day patients were bled, blistered, purged and vomited, until they were cured. If they died, they died cured; cured of the disease, but too frequently they died from the effectiveness of the remedy. Has the science of medicine advanced? Let suffering humanity reply.

True, we have with us in this enlightened nineteenth century, faith healing; a doctrine as absurd as any of the myths of bygone ages, but it is to be hoped that this practice, which is a blot upon scientific medicine and the civilization of this age, will soon be effaced either by legislative action or by the common sense of the body politic.

The advances made in the field of surgery are even more remarkable than in the department of medicine. In the days not long gone by, a patient was tightly bound and while shrieking and writhing in agony, a mutilated limb was removed and the hæmorrhage staunched by the use of boiling oil or the red-hot iron; while to-day "he lies down to pleasant dreams," and awakes to find his mangled limb removed or his deformity corrected. In other days, monstrous deformities were unheeded, and operations that to-day are of common occurrence and by which thousands of lives are yearly saved, were then never attempted. So successful and so daring is the surgeon of to-day, that not a cavity in the human body remains unexplored; not an organ in the human frame but that is attacked, if necessity requires.

Even the brain itself, the seat of intelligence, has been successfully invaded, and brain surgery to-day challenges the admiration of the world.

In the dim dawn of history, we find that Medicine and Religion were inseparable. Disease was considered a punishment for sin to be appeased only by sacrifices to the Gods; consequently the High Priests

not only ministered to man's spiritual wants, but alleviated as far as they could his physical ailments as well. The history of medicine dates back to the time of mythology, and the first great light in the medical firmament was Æsculapius, the God of Medicine. Æsculapius was the son of Coronis and the Arcadian Ischys. Apollo becoming enraged by the misdemeanors of Coronis, ordered Diana to put her to death. The boy, however, was spared and was educated by Chiron, and in later life he became illustrious in the Healing Art, and it is said even brought the dead to life. This so enraged Pluto that he complained to Jove who slew Æsculapius with a flash of lightning. He was now raised to the ranks of the Gods by the gratitude of mankind.

About 300 years before the Christian Era a fatal pestilence breaking out in Rome, it was ordered that the God, Æsculapius, should be brought from Epidaurus; consequently an embassy was sent for this purpose, and upon arrival a snake crept out of the temple into the ship. Regarding this as the God, Æsculapius, they sailed back to Italy, and when entering the Tiber, the snake sprang out upon an island. A temple was here erected to Æsculapius priests were appointed to take charge of the service and to practice the Art of Medicine. The followers of Æsculapius were the Asclepiades and from them, Hippocrates is said to have descended. Hippocrates, the Great, the most famous physician of all antiquity is the next land-mark in the history of medicine. During his period, ancient Greece reached the zenith of her power and glory; during his period, the most famous poets, artists, philosophers and statesmen existed that the world has ever known. In such an age the genius of Hippocrates asserted itself. He it was who separated medicine from religious ceremony and quackery and laid down many principles that guide us even to-day. Many diseases were well understood and many surgical operations well performed; while many remedies in use at the present time were applied in that early day. Ignorant of anatomy of the human frame, and knowing nothing of physiology, it was remarkable that medicine and surgery should have attained so high a degree of excellence. The high standard of medicine of those times is well exemplified in the Hippocratic oath, which might well be studied and carefully observed by every physician to-day. The advances made in medicine by Hippocrates were so great and so remarkable that several centuries elapsed ere further progress was made. But in the course of time another great character appeared upon the scene, whose influence and whose peculiar views controlled the medical fraternity for centuries to follow. The appearance of Galen marks another epoch in the history of medicine. When we consider the vast number of works written by Claudius Galen amounting to no less than five hundred we can faintly realize what an earnest worker and scholar he must have been, and we can scarcely wonder that he remained the "Lord and Master of Medicine for 1,500 Years." Galen by his writings and teachings added more to the anatomical knowledge of the age than any previous author.

It must be remembered that the dissection of the human body was not then permitted and his knowledge was obtained from the dissection of animals in addition to the careful study of two skeletons, which it was his good fortune to meet with while at Alexandria; one stripped of the flesh by birds and the other by the waters of the Nile. Of all his writings, the most important were those on anatomy and physiology, and it is difficult to understand that this great man, whose knowledge and opinions were considered infallible for centuries, taught that the heart was the seat of passion and of courage, the brain an organ for the secretion of mucus and the liver the seat of love.

Galen remained the highest exponent of the medical art and his writings remained the text books until after the dawn of the dark ages. So great was his superiority over all contemporaries that his doctrine remained the law and gospel until modern times.

With the decline of ancient glory the science of medicine lapsed into insignificance. With the decay of the Roman Empire interest in science likewise declined and superstition, alchemy, magic and astrology held their sway. The glory of ancient times gradually merged into a night of mental darkness.

For long centuries the world was enveloped in the deep darkness of ignorance, which constituted the middle, or dark ages. During this long period there was little to attract attention or interest; the land marks were few and far between. These dark ages were unmarked by great men or great deeds. They were like a vast desert with no oases.

But this night of mental darkness was not to last forever; gradually, slowly, painfully a new civilization was to be developed that should eclipse the glory of ancient times. The sun of science and of learning which set upon the ruins of ancient Rome was to rise again to illuminate the whole world.

In the 15th century we find evidence of the breaking dawn of this night of ignorance. The invention of the printing press in 1450 was one of the greatest landmarks in the history of this new civilization. It exerted its influence upon medicine as well as all other branches of science. With the development of this new and glorious civilization, the landmarks are more frequently seen. During the 16th century the practical study of human anatomy was first established by the immortal Vesalius, and thus the foundation laid for all correct medical knowledge. During this and the succeeding century we find the names of Eustachius, Fallopius, Asellius, Harvey, Malpighi, Glisson and Sylvius, all of whom made their names immortal by their anatomical discoveries. During this epoch chemistry was separated from Alchemy and assumed the character of a distinct science.

During the 18th century we meet with many names identified with the progress of medicine; among them we find the names of Bœrhaave, Van Swieten, Monro, Blane, Hunter and the immortal Jenner. During this period we find one of the greatest landmarks in the whole history of medicine, the discovery of the protective power of vaccination, which has been the means of saving more lives than any other discovery of either ancient or modern times.

In Gloucestershire, England, there is to be seen an humble and a neglected grave. Upon the headstone we see the name of Benjamin Jesty. The Epitaph reads simply: "An honest and upright man." And who was Benjamin Jesty, one who was buried in disgrace because he successfully vaccinated the members of his own family, thereby acquiring the ill-will of all his friends and acquaintances, for he had done that which was liable to transform them into beasts with

horns. Thus, Benjamin Jesty and his great discovery were buried and soon forgotten.

Twenty years later, Jenner made the same discovery, and had the courage to press his convictions to a successful issue, and after years of ridicule and hardship and discouragements to finally win the appreciation of the world. Humanity can hardly estimate the blessing conferred by this single discovery, for it has added many, many thousand years to human existence.

Another landmark, worthy of note, of the 18th century was the first establishment of insane asylums, and the more human treatment of those deprived of reason. Previous to this period, the insane received the most barbaric treatment; they were confined in dark rooms, deprived of fresh air, sun-light and exercise, often chained, put into cages and exhibited like wild beasts for a penny a head.

While the present century is notable for great advances in all departments of medicine and surgery; while many new operations have been devised and many old operations modified; while ovariotomy, laparotomy, intestinal and brain surgery have been developed and have attained that degree of success that is almost miraculous; while medical apparatus and surgical instruments of all kinds have been devised until it would seem that every possible emergency could be promptly and successfully met; while the medical press during this century has been developed to the highest possible degree and has exerted a most powerful influence in developing practical medicine; while we have a long list of names of those who have rendered immortal service to mankind; while every branch and specialty of medicine have been carefully cultivated, yet there stands out prominently three great landmarks that will ever make the nineteenth century illustrious as long as time and history endure. These are: First, the discovery of the anæsthetics. Second, the inauguration of antiseptic surgery; and third, the development of bacteriology.

The first opened up possibilities that before were impossible; for while consciousness is subdued and the patient dead to all sensibility, the surgeon enters without fear, almost every cavity of the human body. When we contemplate the vast amount of human suffering that has been endured in ancient and modern times, we can faintly realize the great and priceless boon bestowed upon humanity by the discovery of the anæsthetics, while the thousand operations that are now daily and painlessly performed, attest the greatness of the discovery.

The inauguration of antiseptic surgery marks another era in the history of medicine no less important. The observation of antiseptic principles in surgery and obstetrics have been the means of saving more lives than any other discovery, unless it be that of vaccination. With proper precautions the surgeon of to-day no longer fears the septic fever, even after the gravest operation. While puerperal fever, which has been the dread and curse of lying-in hospitals all over the world, is now rapidly becoming a disease of the past. Great as have been the blessings bestowed by the discovery of the anæsthetics and the use of the antiseptics, yet a still greater boon promises to result from the science of bacteriology. The detection of bacteria in the blood or sputum of the patient, their cultivation, the inoculation of animals with these cultures and the reproduction of the original disease, offers a rich field for scientific study. The names of Pasteur and Koch have been rendered immortal by this line of research.

Not many years will elapse before scarlet fever, measles and diphtheria will cease to be the dread diseases of childhood. It is not vouchsafing too much to promise immunity from these diseases as a result of this line of scientific investigation.

In thus hastily glancing over the page of history, we see that with the onward march of civilization, the great landmarks in medicine become more and more frequent. As the 19th has surpassed all preceding centuries in the advances made in all departments of learning, so the 20th will surpass that which is so brilliantly drawing to a close. New truths, new inventions and new discoveries still remain to be revealed. Unknown diseases will develop, requiring new methods of treatment and man's ingenuity will ever be taxed as long as death remains his mortal enemy.

Gentlemen, you have to-day been received into the ranks of one of the noblest of professions. A great, active, progressive, enlightened profession, although an exacting one; one requiring courage to face unseen dangers; one calling for all the higher attributes of a man; one calling for many sacrifices; and one with but few rewards, the greatest being the consciousness of work well done: Then, "Act well your part, there all the honor lies."

Headache—Its Varieties.*

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Gentlemen: I am glad that you have selected the subject of headache. There are few subjects which present so many obscure points. The term headache simply expresses a symptom; it means head-pain, and that is all. Head-pains are of very varied origin, as a little reflection will convince you. The pain may affect different structures. The membranes of the brain, especially the dura, the skull and the scalp, are at various times the seats of this pain which we call headache.

ORGANIC HEADACHES.

Headaches naturally fall into two great groups—headaches due to organic causes and headaches which are non-organic. Headaches due to organic causes are such headaches as would be produced by a tumor, by an exostosis within the cranium, by a depression of bone irritating the dura, or by an inflammation of the dura itself. An organic headache, therefore, would be one associated with a demonstrable lesion. The organic headaches are very readily separated from the non-organic by the fact that they are apt to persist steadily, from day to day, with very little variation. They are practically continuous. Further, they are very likely to be associated with other very pronounced symptoms. Let us take brain tumor as an instance. In brain tumor, we almost always have headache if the tumor impinge on the membranes. If, however, it be within the brain substance and not large, headache may be absent. Now, for some reason not yet understood, we have associated with tumor inflammation of the soft membranes—the pia and arachnoid—

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and this inflammation extends to the sheaths of the optic nerves and gives rise to the intra-ocular appearances which are known as optic neuritis or papillitis. The older ophthalmologists explained this by the fact that the tumor increased the intra-cranial pressure, an explanation shown by many investigations to be alone unequal to an adequate understanding of the intra-ocular changes. Whatevever be the explanation, the fact remains that organic headache is apt to be associated with eye symptoms. There are also liable to be general symptoms such as some affection of motion or sensation, or there may be symptoms indicating focal disease of the brain.

Then in organic headache there are, at times, associated brain symptoms. There may be, as in syphilitic meningitis, at times excessive tendency to sleep, or there may be symptoms showing marked brain irritation, maniacal excitement, delirium, or, more commonly, more or less marked mental failure. All of these symptoms may, however, be absent. Headaches of organic origin are usually not difficult to diagnosticate. The only case in my experience in which there was difficulty was a remarkable one. There was, as was shown *post-mortem*, a marked hæmorrhagic meningitis of the vertex. In this case the headache was persistent, some days a little better, some days worse, but always present. It was, however, not associated with eye symptoms. The explanation of the absence of eye symptoms was that the affection was limited to the vertex and was not very extensive. Often, however, with vertex affections, there may be eye symptoms. The fact that the headache was persistent led to the view that it was of organic origin.

The points in favor of organic headache are, therefore, constancy of the pain, associated eye or motor or sensory symptoms, and, at times, localization of the pain or even tenderness on percussion.

NON-ORGANIC HEADACHES.

The non-organic headaches fall naturally into a number of subdivisions, which we will consider in turn.

MIGRAINE.

In the first we have a headache which is called migraine, the word being a contraction by the French of the word hemicrania. It differs altogether from other headaches. It is distinguished from ordinary headache by the fact that there is invariably more or less sympathetic nerve disturbance. This disturbance may be little, it may be great. Further, migraine is preceded, in the vast majority of cases, by a distinct aura. It has a signal symptom just as we have a signal symptom in epilepsy, although it is a prodromal symptom which lasts much longer. It may be varied in character. Most frequently a person suffering with migraine will experience eye symptoms, and he will experience them while feeling perfectly well. He may notice little zigzag lines of light dashing across the field of vision, or limited, perhaps, to certain portions of the field. These may persist for a fraction of an hour, or possibly an hour, or even longer. Experience soon teaches the individual that this means that he is going to have an attack of headache. The eye symptoms may be quite remarkable. Every now and then the attack is preceded by hemianopia. Either the right or left temporal field of one eye and the nasal field of the other eye become blind. Frequently the blind area, which is not as sharp as in organic hemianopia, has an outline of zigzag vibrating lines of light.

In other instances the aura is even more remarkable. Attention was first directed to this by Dr. S. Weir Mitchell, who noticed that some patients had hallucinations of sight always affecting certain areas of the visual field. One patient always saw a relative, who had died some time previously, standing at her side. The vision would retreat as the head was turned, always keeping at the same angle. This lady soon learned that this meant an attack of headache. Drs. Mitchell and de Schweinitz described several other cases, among which was a patient of my own, a married woman, 35 years of age, who has had several children. While alone in her room she will see two of the children at her right side. So natural is the illusion that she turns her head to look at them. She has learned to know that this means that a headache is about to come on. This strange condition still persists.

There are also other prodromal conditions. One of my patients, a middle-aged lady, was always in excellent spirits preceding an attack. She would be bright, vivacious, talkative and brilliant, and every member of the family would at once recognize that she was going to have a headache. Sometimes the opposite condition, that of depression, precedes the headache. Disturbances of hearing, taste and smell are never to my knowledge present as prodromal symptoms in migraine.

The attack itself presents the following striking peculiarities: The patient suffers from one of two conditions, marked either in the early part of the attack or after it has been somewhat advanced. In the first form the face is flushed, and the pupil of the affected side is contracted. This is undoubtedly due to paralysis of the sympathetic of the affected side. The face is also comparatively warm. It is sometimes bathed in perspiration. This, as a rule, lasts for several hours, becoming less marked as the pain disappears. In the second form there is, instead of paralysis, excessive stimulation of the sympathetic nerve of the affected side, and the skin is blanched and the pupil dilated. This condition persists during the greater part of the attack. Here we have features which are more or less decided and enable us at once to distinguish migraine from ordinary headache. The migraine attack may pass away simply by the pain becoming less and less, the patient going to bed and sleeping it off, or it may be relieved by vomiting. The latter termination is so frequent that it is ordinarily spoken of as "sick-headache." Migraine recurs at irregular intervals.

Migraine may, therefore, be differentiated from other headaches by the one-sided character of the attacks, by the sympathetic nerve disturbances, which are, however, not always very marked, and by the presence of the prodromal symptoms.

As regards the seat of the pain in megrim we know that the sympathetic is not a nerve that suffers much pain. The pain must, therefore, be really in the terminal distribution of the fifth. The latter nerve supplies not only the greater portion of the scalp and face but it also supplies the dura, and we know that pain in the dura is pain in the fifth nerve. All head-pains must, therefore, be relegated more or less to the distribution of the fifth. It must be that in migraine the sympathetic modifies the nutrition and

other processes in the region supplied by the fifth. In the superficial occipital headaches the fifth is not involved, for here we have another nerve supply. When I say terminal distribution of the fifth nerve, I mean, of course, the tissues supplied by this nerve and not the branches of the nerve. In typical headache, involving the nerve-trunk, as in malaria, you have tender points over the nerve-trunks showing that the nerve is decidedly involved. In migraine you have no tender points, but the pain is a diffused one.

HEADACHES OF ANÆMIA AND HYPERÆMIA.

In the second subdivision of non-organic headaches, we have, first, slight nutritional disturbances in the distribution of the fifth, which give rise to vague, dull and diffuse and sometimes constricting pains. Such, for instance, is the headache which occurs in cerebral anæmia, or the headache which we have in the opposite condition, cerebral hyperæmia. The headache of anæmia is, of course, associated with the general symptoms of anæmia or, at times, the symptoms of chlorosis. It may, in addition, be associated with other symptoms, such as those of neurasthenia, indicating a generally weakened nervous system. The headache of anæmia is apt to recur frequently, is of a dull and persistent character, and never reaches that climax or acme of suffering which we have especially in sick headache. In migraine, the headache grows worse and worse until the climax of suffering is reached, when, by some crisis, as vomiting, the pain is relieved. These remarks apply also in a general way to the headaches of hyperæmia. Associated symptoms will enable you to recognize headaches due to hyperæmia. The hyperæmia is of two kinds —arterial and venous—but I shall speak of these conditions later on.

DIATHETIC AND TOXIC HEADACHES.

Next to these comparatively simple forms of headache due to anæmia or congestion, I shall speak of the headaches which are produced by disturbances of nutrition from diathetic and toxic causes. In the headaches from diathetic causes we have, of course, such common and such persistent forms as the lithæmic and gouty headaches. I know of no condition which is more difficult of treatment and no condition which is more persistent than the headache due to gout. In a number of these cases it is difficult to decide whether you have migraine to deal with or irritation of the meninges due to a deposit of urates. In the majority of cases there can be no doubt that the trouble is due to a direct irritation of the meninges. It is exceedingly common for persons with a gouty history to have also a neurotic history, and you will find that patients who have these gouty headaches also have a general history of headaches in their ancestry. A German writer, whose name escapes me, found in one of his patients that during the headache the urine was markedly deficient in urates and uric acid, and that as the headache subsided the uric acid constituents increased in amount. Remember, also, in attempting to make the distinction between gouty headaches and migraine that your patient may suffer with both affections. It is not uncommon to find patients who have true gouty headache and also true attacks of migraine.

Next, we have headaches of rheumatic origin. These differ very much from gouty headaches. In the first place, headaches that are directly due to rheumatic irritation of the meninges are generally headaches that occur during the acute attacks of rheumatism itself and are frequently associated with delirium or with other signs of mental excitement or disturbance. The ordinary rheumatic headache much more frequently attacks the fibrous tissues external to the skull. We have, for instance, extensive aching, of which an important feature is tenderness of the aponeurosis of the occipito-frontalis muscle, and also tenderness over the insertion of the trapezius in the occipital region. These rheumatic headaches are generally easily diagnosticated, because they are frequently associated with other signs of rheumatism. The person who suffers a great deal from rheumatic headache frequently has muscular rheumatism, and rheumatism of a subacute or chronic character in the fibrous tissues about the joints as well.

Next, under toxic headaches, come headaches of uræmic origin. These headaches are, of course, associated with general symptoms which you would be likely to detect. The thing which we all do as a matter of routine is to take the patient's wrist and feel the pulse. In a large number of these cases you will find that the pulse is hard and more resistant than normal. The tension is higher. If the person be somewhat advanced in life, the vessel may be decidedly atheromatous. You will therefore be attracted to the condition of the heart, and that would in turn suggest examination of the urine. In all headaches which cannot be explained by other causes, the urine should be examined. In fact, in cases of headache, the examination of the urine should be a matter of routine. The character of the uræmic headache is different from that of other headaches. It is described as of a dull, heavy character, and is frequently associated with some obtunding of the faculties, and often with a little dullness of hearing.

We also have, though not frequently, a headache occurring in diabetes. It is of course associated with the other symptoms of diabetes. Its presence is always of serious significance, as it not infrequently portends diabetic coma and death.

There is sometimes associated with syphilis a headache, which is not due to direct inflammation of the membranes, but which in some way is associated with the general blood poison. In these cases there is no special syphilitic deposit or inflammation of the membranes. They are relieved by the iodide and are apparently due to irritation of the membranes. Syphilitic headaches, associated with true gummatous deposit or specific meningitis, of course come under the organic headaches.

Among the other purely toxic causes we have malaria. The malarial headaches distinguish themselves from other forms of headache by the peculiarity of other malarial affections—namely, that of recurring at tolerably regular intervals. Malarial headaches may be general and widely-diffused headaches, but as a rule, and for some unexplained reason, they affect especially the frontal region of one side, so that the disease has come to be spoken of as "brow ague." During the attack it is found that the supra-orbital nerve of the affected side is very sensitive. If in a case of brow ague you put your finger over the supra-orbital notch, although you may not make much pressure, the patient will flinch and even scream. If you roll the nerve under your finger, you will find that it is swollen. Normally, you cannot feel the nerve. I

have frequently felt the nerve in patients with brow ague, especially in thin individuals. These malarial headaches are usually easy to diagnosticate. They are headaches occurring at intervals more or less regular, and affecting preëminently the brow and one side only.

We have headache due to the action of other poisons, such as alcohol. The alcoholic headaches are of two kinds. We have the chronic alcoholic headache, which is probably due to some change in the membranes. We know that in making *post-mortems* of chronic alcoholics, we are apt to find the pia opalescent, and along the veins we find little white strips where exudation of leucocytes has taken place. It is not improbable that the dura also suffers thickening or chronic irritation in chronic alcoholic poisoning. The second form of alcoholic headache is that which follows a debauch, and due not so much to irritation of the membrane as to over-distention of the sinuses. Alcohol produces an intense hyperæmia of the brain and membranes. That is probably one explanation of the pleasurable effects of alcohol. It stimulates the heart and makes the brain hyperæmic, and probably has some specific effect upon the nerve protoplasm. Following the hyperæmia, there is a venous stasis or congestion, and the sinuses become overdistended, and the pressure causes a decided, dull, heavy headache.

We have other toxic headaches. We have the condition known as lead encephalopathy. Fortunately, this is rare. I have myself seen but two cases of lead encephalopathy. These cases are associated with other symptoms due to the presence of lead. The patient is apt to have epileptiform seizures, and sometimes there is dementia. In addition there may be wrist-drop, lead colic or the blue line on the gums. You must judge of the significance of head-pain by the presence or absence of other symptoms.

Then we have headache following exhaustion of the brain by such stimulants as tea, coffee and other nerve stimulants. If the brain is thoroughly exhausted by the overuse of nerve stimulants, there is for some reason a nerve pain, probably in the membranes. It appears to be really a neuralgia of the terminal distribution of the fifth nerve in the dura.

REFLEX HEADACHES.

Having considered the great group of sympathetic headaches, those due to purely functional disturbances, as anæmia and hyperæmia, the various diathetic headaches, and the toxic headaches, we come now to another important group—that is the group of headaches of reflex origin. Suppose that you have decided in your mind that a case is not one of megrim; that it is not a congestive headache, as it does not occur in a plethoric subject; that it does not occur in a chlorotic girl, or in a patient with excessive anæmia; you have searched for diathetic causes and for other symptoms of the various diathesis; you find no toxic cause, and you narrow the headache down to one of possible reflex origin. Headaches of reflex origin or sympathetic headaches. as they are sometimes called, are in the vast majority of cases, due to some ocular defect. Eye headaches are headaches in which the pain is felt over the brow. Some of you have experienced these yourselves. The pain does not spread to the vertex, but usually remains in the neighborhood of the orbit. Very frequently, however, it is reflected to the occiput. Examination of the eyes in these cases will probably reveal astigmatism or muscular insufficiency. If these defects cause the headache, their correction will relieve the pain. It is not possible to make a diagnosis of the cause of a headache in every case at the first examination. Many cases must be studied for a long time before you can absolutely decide to what the headache is due.

We may in the next place have headaches of nasal origin. No affection is more common than abnormalities of the nasal chambers. A large number of persons suffer with hypertrophies of the middle and inferior turbinated bones. If the hypertrophy be marked, the hypertrophied bone presses against the septum, and the individual does not feel pain in the nose, but feels pain elsewhere, although he may suffer discomfort from not being able to breathe properly. The pain may extend over the malar region, over the temporal region, or along the frontal region to the vertex, on the side on which the hypertrophy exists. Examination would show whether or not there was hypertrophy. If a probe is passed and the hypertrophied parts be touched ever so gently, the chances are that the headache will be made worse. Again, pressure on the nose over the affected side from the outside, or pressure on the inner wall of the orbit, will give rise to increased pain.

Another form of reflex headache is the gastric headache. Very frequently gastric headache is confounded with migraine. A patient with migraine, however, may have a normal stomach. A person, the subject of ordinary gastric headache, is apt to have signs of chronic gastric catarrh. There is apt to be a coated tongue, tenderness over the epigastrium, eructations of gas and frequently of acid substances, and there is often heartburn. These gastric headaches are invariably relieved by vomiting, and, as a rule, the patient vomits fluid that is intensely acid. This is a peculiarity of reflex gastric headaches. They do not have the one-sided character of migraine, but have a diffused character. They generally affect the brow and vertex.

We have next headaches which are not very common—headaches which are related to cardic or pulmonary conditions. I merely mention these headaches because it must suggest to you that where you fail to find a cause, you must continue the examination. Examining the heart, you may find hypertrophy or dilatation, or there may be slight valvular affection. In such cases, if proper attention be given to the hygiene, and suitable treatment be employed, the headache will be relieved. Headaches of pulmonary origin are always obscure. I do not make a special point of them here. In phthisical subjects we have headache from exhaustion and anæmia. The typical pulmonary headache occurs in commencing pneumonia or congestion of the lungs.

Then we have a common form of headache which is due to disease of the uterus or its appendages, and is also reflex. This is almost always a vertex headache, situated on the top of the head and relieved by pressure. If you find a headache which is vertex, which is more or less constant, and which has the peculiarity of being relieved by pressure, the patient habitually using the hand to relieve the pain, your attention should be directed to the uterus and ovaries. This form of headache is quite common.

We have also headaches due to affections of the bowels. Headaches from constipation are frequent.

The headache of constipation is reflex and is relieved by having the bowels opened, even if the laxative be not such as to produce marked revulsion. If a cathartic, simply sufficient to unload the bowel, is given, the headache is relieved.

I might also include hepatic headache. I enumerate these various headaches more particularly to impress upon you the necessity of always looking for the cause. Explore the patient from head to foot. That is the only way of making a reputation as a diagnostician. No organ should be left unexplored. The condition of the heart and blood-vessels, the condition of the kidneys, the condition of the liver, of the bowels and stomach, and if the patient be a woman, of the generative organs. In that way very little is apt to escape one.

HYSTERICAL HEADACHES.

There are other headaches which I shall consider briefly. We have the so-called hysterical headaches. These are neither headaches of nervous exhaustion nor headaches of cerebral anæmia. The headache which comes on in nervous exhaustion, and which may be included probably with the headaches of cerebral anæmia, is dull and diffused, and at times associated with a sense of constriction or "gone" feeling in the head. The hysterical headache is generally marked on one side, but is accentuated in one spot. It may be in the parietal region or near the vertex. The patient will frequently use this expression: "It feels as though a nail was being driven into my head." You will find on exploring the scalp that while you may press firmly on all other regions, yet when you press on the spot in question it causes great pain. No one has yet given an explanation of hysterical headache. It is one of those curious and anomalous features which hysteria presents. There can be no doubt that the hysterical headache is a real headache —that it is a genuine pain. You cannot decide how great the pain is, but the probability is that there is decided suffering, just as hysterical anæsthesia is a decided anæsthesia. It is a real condition and not feigned. The great mistake usually made is to imagine that hysteria is feigned, and that hysterical patients are necessarily malignerers. This is not by any means necessarily the case. In fact, in profound hysteria it is not the case. The condition of hemianæsthesia, hemiplegia or local palsy, is true and absolute so far as the patient is concerned. The same is true of the headache. It is one of those curious things which we cannot satisfactorily explain.

Lastly, we have the headaches which are symptoms of the various febrile disorders. It would not take you long to decide what such a headache was, for the simple reason that the headaches which occur in the prodromal stage of the various fevers, are accompanied with other symptoms. The man who has a headache in the prodromal stage of small-pox will also have a terrible backache and aching in the limbs, and will say that he feels bad all over. The headache is not the most marked feature. It is only one of the features. I simply allude to these headaches to cover the ground in general. The headaches which are symptomatic of various febrile disorders, especially the exanthemata, are associated with other symptoms which suggest something wrong in the patient as a whole. If you examine the pulse and temperature it will put you on your guard.

TREATMENT.

We come now to the treatment. This is an exceedingly knotty question. I shall not spend time in the consideration of the treatment of organic headache. I can indicate only general principles. If there is a tumor, it should be removed if possible. If there is meningitis, it is to be dealt with on general principles. If the patient bears the iodides and mercurials well, they should be given, while at the same time counter-irritation should be practiced. Especially is this treatment applicable in headache following sunstroke.

A great deal might be said in regard to the treatment of the cases that belong to the group of migraine. In the first place, the patient should be put on such constitutional treatment as will improve the general condition and bring it up to a high standard. Every error of diet should be eliminated, not because the patient has gastric catarrh, but because he suffers with migraine. These patients should be given large amounts of milk in addition to other food. The food given should be in a digestible form. Exercise is another important factor. This should be rigidly insisted upon. However, in spite of what you do, although the attacks may be less frequent, it is improbable that you will be able to stop them altogether. I do not say that this is invariably true, but it is so in many cases. In addition, it is necessary to practice some decided interference at the time of the attack. One plan is to use morphia. Of course, that is a decided way of dealing with pain due to any cause. This is, of course, a dangerous method of dealing with pain, especially where there are recurring attacks, for the patient inevitably acquires the morphia habit. Again, especially where the migraine is associated with sympathetic spasm, the pain is often relieved by large doses of whiskey, especially if it be given hot. Various drugs have in recent times been given, not only for migraine, but also for other head pains, notably antipyrine and antifebrin. Antipyrine is a very valuable drug, and is a decided addition to our armamentarium. In some way or other the motion has got abroad, and is held by many people, that antipyrine is a dangerous drug. An ordinary individual will stand ten, fifteen and even twenty grains without noticable effect on the heart or pulse. Antifebrin is a dangerous drug, and should not be given in large doses. Antipyrine, however, only exceptionally acts as a depressant. A good plan is to associate the antipyrine with bromides. The depressing effect, if any, can be prevented by giving digitalis, or especially by aromatic spirits of ammonia, which is acceptable to the stomach in this condition. Cannabis indica also enjoys a reputation in the treatment of migraine, and a just one. One-fourth to one-half a grain of the extract may be given at intervals of four hours.

In the treatment of functional headaches, due to anæmia or chlorosis or to hyperæmic states, general principles, of course, must guide you. The anæmic patient needs the best hygiene, and especially does he need iron. He requires the most nutritious diet. The headache of chronic nervous exhaustion and neurasthenia may also be spoken of here. The only way in these cases is to put the patient to bed for a while. Forced feeding, especially with milk, massage and faradization will cause improvement in the general health, and the headache will disappear. You may treat some of these cases in other ways, but you will

make no impression on the headache until you put them to bed. If you make the diagnosis that the headache is due to neurasthenia, do not hesitate to tell the patient of the necessity of rest, else you will fail in relieving the headache, and your reputation will suffer.

The headaches due to disorders of nutrition, as the various diathetic headaches, will call for their special treatment. The uræmic, rheumatic and diabetic headaches suggest what is to be done. The same is true of the toxic headaches. I shall here refer to one point only, and that is in connection with the malarial headache. This is not, as a rule, relived by ordinary doses of quinine, such as would prevent the recurrence of a chill. If you do not give large doses, you will fail. Twenty and even thirty grains are required to make an impression. Where it is necessary to give very large doses it is well, in order to avoid irritation of the stomach, to give the drug in ten-grain doses in capsuls every hour with a quantity of milk, until the required amount is taken. In that way the quinine will dissolve slowly in the presence of the curds of the milk, and there will not be much irritation of the stomach. In order to obtain the best effect the remedy should be administered four or five hours before the expected attack.

In regard to headaches of reflex origin, each case will require its appropriate treatment. The eye, nasal and gastric headaches suggest their respective treatment. Gastric headaches are due to chronic gastritis, and the treatment should be directed to the relief of this condition. Do not let yourself be turned aside from the proper thing to do by dabbling with pepsin and other digestants. Put the patient on a bland diet, give him nothing but milk, perhaps with a few crackers or stale bread. To this possibly may be added beef juice from time to time. If he will consent to give the stomach a rest he will recover. This is the most important part of the treatment. Nitrate of silver is also of service. One-fourth of a grain of nitrate of silver, with hyoscyamus or belladonna, may be given thirty minutes or an hour before meals. It should be swallowed with as small a quantity of water as possible. Even if their be formed, as some assert, an albuminate of silver, there can be no doubt that the drug has some alterative effect upon the stomach. It probably acts as a stimulant and a sedative. It is probable that it rapidly undergoes chemical change, but we know that cases improve more rapidly with silver than without it. During the attack of headache it is well to give an emetic, and preferably one that will not irritate the stomach. You would not, under these circumstances, think of giving mustard. You could give the patient warm water until he could retain no more. The moment vomiting takes place the headache is relieved. The vomiting should be followed by the administration of an alkali, such as bicarbonate of soda, soda mint or a tablespoonful or two of lime water in ordinary water.

If you have an obscure headache, for which you can find no obvious cause, and you detect physical signs of cardiac disease, you must take this into account. Do not forget, further, the part that the bowel may play in the production of headache. Uterine headaches will require their special treatment.

Hysterical headache is among the most difficult to treat. Here again general principles must guide you. You must treat the hysterical patient as a neurasthenic patient. It so happens that in hysteria we almost always have neurasthenic symptoms. In order to show you the role that neurasthenia may play in hysteria, I will cite a case from my own experience. I had under my care, some years ago, a young woman who was undoubtedly hysterical. Otherwise she was apparently in good health. She had a good color; she was not anæmic. She was a rather plump woman of about 20 years, but certainly hysterical. She was placed in bed and upon the rest treatment, but, owing to the interference of the mother, it was not carried out as well as it might have been. Instead of improving she got worse, and after a time typical hemianæsthesia appeared. With this there appeared some thickening of the epithelium on the effected side. Then the fine hair, which is found on the arms and legs, became exceedingly brittle, so that in sweeping the hand against the hairs, they would break off. In addition, she finally developed keratitis, and eventually lost the sight of the eye upon the anæsthetic side. I merely cite this case to show how profound hysteria may be and how marked the neurasthenia, which frequently accompanies hysteria, may be.

This is all that I can say to-night on the subject of headache. It is not improbable that I have omitted much of importance. My idea was merely to present a brief outline of the subject, with hints as to diagnosis and treatment.

My classification of headaches is as follows:

(I) Organic headaches.
(II) Non-organic or functional headaches.
- (*A*) Headache, with sympathetic nerve involvement--*migraine.*
- (*B*) Headaches from purely functional disturbance of nutrition.
  - (*a*) Headache from anæmia.
  - (*b*) Headache from hyperæmia.
- (*C*) Headaches from disturbances of nutrition from diathetic and toxic causes.
  - (*a*) Diathetic headaches.
    - Lithæmic.
    - Rheumatic.
    - Diabetic.
    - Uræmic.
  - (*b*) Toxic headaches.
    - Malarial.
    - Alcoholic.
    - Lead.
    - Tea and coffee headaches.
- (*D*) Headaches of reflex origin.
  - Eye headaches.
  - Nasal headaches.
  - Gastric headaches.
  - Cardiac and pulmonic headaches.
  - Uterine and ovarian headaches.
  - Bowel headaches.
- (*E*) Hysterical headaches.
- (*F*) Neurasthenic headaches.
- (*G*) Headaches associated with the various febrile disorders.

—*Univ. Med. Mag.*

Gum chewers' cramp is a new addition to the types of disease produced by the frequent use of a single group of muscles. It is a muscular incoordination similar to writers', telegraphers', milk maids' and cigar makers' cramp.

Liebreich's Cantharidin in Tuberculosis.

A Brief Abstract of the Proceedings of the Berlin Medical Society, February 25, 1891. Compiled from the Berliner Klinische Wochenschrift of March 2, 1891.

By Eric E. Sattler, M. D., Cincinnati.

It is not the first time that Oscar Liebreich, the chemist, has given to the medical world the fruits of his labor. It was he that gave back to us *chloral-hydrate*, with its manifold uses, after it had remained unknown for thirty-seven years since its discovery by Justus von Liebig.

It was during the examination of the reaction in a case of lupus treated by Koch's fluid, that Liebreich came to the conclusion that this reaction must be due to a substance which acts locally in a similar way, as we are accustomed to find in those substances that belong to the group of caustic or acrid substances. He had had for some a substance in mind, which already rested on an historical foundation, and which, as a therapeutical remedy, had been successful in a variety of diseases. It was the Spanish fly (cantharis) and especially the active principle contained in it, a volatile, acrid, bitter solid, crystallizing in four-sided prisms.

Hippocrates already knew the value of the Spanish fly. He describes in his work a number of cases accurately, and gives its therapeutical indications. In "Plinius" we read of a knight who poisoned himself because he used the remedy in too strong a dose for some skin affection. It was used until the middle of this century, and then almost completely abandoned.

Its use was mainly given up because it was supposed to be followed, in its internal use, by dangerous complications. In France, during the latter part of the last century, the sale of the "*pastilles gelantes*" was prohibited, even in England, Groeneveldt (Greenfield) was imprisoned because he had used the remedy internally. The investigations made formally in the Hospital St. Louis, at Paris, France, are of the greatest value and interest. The well-known Alphée Cazenare showed what beneficial results we can get from the use of this remedy. He describes a case in which he gave internal doses of the tincture of cantharides up to twenty drops, and in two months completely cured a man who had for years been afflicted with psoriasis. Other cases of skin affections are also cited, and incidentally also the success with which the remedy had been followed in some cases of lung trouble. English observers have also called attention to the beneficial results obtained in certain lung affections. It was the inconstant and variable amount of catharidin contained in the tincture, which made it so uncertain, and in many cases so dangerous a remedy. This was due to the fact that a great many varieties of the Spanish fly were used—all containing variable amounts of the active principle, and therefore no exact dosage could be expected.

Robiquet was the first to find in cantharides a crystalline substance, *cantharidin*, with a formula of $C_{10} H_{12} O_4$. Aufrecht made a number of experiments with cantharidin. He found if he injected cantharidin in almost toxic doses, nephritis was developed. If just enough cantharidin is injected to kill the rabbits experimented upon, an exudation was found in the malpighian capsules of the kidneys. The cause of death was generally paralysis of the respiration (*Respirations lähmungen*). Post-mortem examinations developed a peculiar condition in the lungs, not exactly an œdema of the lung, but the lungs were found to have a much greater consistency. These observations showed that cantharidin, when injected experimentally, does not produce the inflammatory conditions that one expects to find, but that a peculiar process is developed in the capillaries, followed by the exudation of serum. This is the characteristic action of cantharidin. If now cantharidin is given in such small doses that it has no deleterious effects on the normal lung or kidneys, but attacks diseased or inflamed capillaries, whereever these may be, an exudation of serum takes place. This exudation must not be underrated. Buchner, Stern and others, have beautifully demonstrated that the serum has anti-bacterial properties, and we may, therefore, suppose that the exudation around diseased and irritated capillaries possesses disenfectant properties.

Many substances were tried to hold the cantharidin in solution for subcutaneous injection, and at last it was accurately determined how much caustic potash (alkali) was necessary to dissolve the cantharidin. A clear solution, with a slight alkaline taste, even in the strength of two deci-milligramme cantharidin to a cubic centimeter, is the result. The first experiments were made with the coöperation of Prof. Ewald and Gumlich, with very small doses, 1-50 milligrammes. These doses were increased until at length a maximum dose of six deci-milligrammes were made. This is the largest dose that can be injected subcutaneously with safety. The usual doses for therapeutical purposes lies between these two extremes, and is from one to two deci-milligrammes. The remedy was now given into the hands of Prof. Fraenkel, Drs. Heyman and Landgraf, especially to be tested in cases of laryngeal affections. The results are briefly stated later. Liebreich, in closing his article, remarks that it is far from being a specific for tuberculosis, as its action may be of benefit in other diseases as well. In using the remedy he especially cautions to watch its effects on the kidneys, and never to use it where the kidneys are affected. The initial dose must not exceed one deci-milligramme, and may gradually be increased to two deci-milligrammes. It is not necessary to give injections daily, but a day, at least, should intervene between the injections.

At the same meeting Dr. Heyman gave the results of the treatment of twenty-seven clinic patients with cantharidin; ten patients were under treatment so short a time that they were left out of consideration, of the seventeen remaining cases, eleven were cases of extensive tubercular changes in the larynx of the worst type, while six were cases of chronic laryngitis. All patients were treated at an out-patient department, and followed their usual mode of living in every way. Local inflammatory signs at the site of the injection occurred but once; abscesses never developed. The injection was given whenever practicable between the two shoulder blades.

In the eleven cases of tubercular disease of the larynx most extensive alterations had already taken place. The voice was affected in all cases, either hoarse, or, as in most cases, completely aphonic; the general condition was poor. Generally after three or at most four injections, the general condition of the patients became better, their appearance brighter. At

the same time, a remarkable improvement in the voice took place. This gradually increased to clear up, so that in some cases there was scarcely any perceptible hoarseness after a while.

The character and number of bacilli did not seem to change. The change in the lungs was also marked; moist rales disappearing, the dullness decreasing somewhat and the cough becoming less and less, the expectoration more thin and watery. In four cases the cough ceased entirely. In most cases night sweats diminished or ceased altogether. In one case with hectic fever, the fever disappeared entirely after the fourth injection. Laryngoscopically, the cases showed first a decrease in the redness of the larynx, soon the infiltration of the tissues became less and less, granulations became paler and more flattened. A number of ulcers healed completely, while others are fast approaching that state. The œdematous swelling of the arytenoid cartilages was lessened in all cases. The healing processes go on gradually and insensibly in the same way that we are accustomed to see syphilitic affections disappear, by the use of the iodide of potash.

In the six cases of chronic laryngitis, one case refused to respond to treatment; in the second case, the catarrhal ulcers healed completely after the tenth injection. In three cases marked decrease of the redness and swelling could be seen, and improvement was marked. A detailed history of all cases follows.

Prof. B. Fraenkel then followed with the demonstration of cases. Three weeks ago he was requested by Prof. Liebreich to try the cantharidin on cases of laryngeal phthisis. Some difficulty was experienced in selecting cases, as most of the lighter forms under observation were being treated at the time with Koch's fluid. It was therefore necessary to take more advanced cases of laryngeal tuberculosis that had not been subjected to the Koch treatment.

First case: male; thirty-seven years old; cough for seven years, hoarse since Easter, 1889. Very emaciated; night sweats. He had been treated locally at policlinic since December, 1890. At the time the cantharidin injections were begun he had been aphonic for four weeks; extensive ulcerations present on both vocal processes, extending to the false and true vocal cord on the left side, bounded behind by a granulating swelling over the whole posterior laryngeal wall. After the second injection the swelling became less, the granulations smaller. After the third injection the voice came back, the cough became less and much loser, and deglutition was no longer painful. At the present time the ulcerations on the one side have completely healed.

Second case: male; thirty-eight years; cough for two years; painful deglutition since December, 1890. Has been completely aphonic for four weeks. Epiglottis swollen and ulcerated; vocal cords swollen and œdematous; marked tubercular changes. After the third injection aphonia disappeared entirely and deglutition was no longer painful.

Third case: female; thirty-eight years. Aphonic. Intense pain in deglutition, only liquids can be swallowed, even these not without great pain. Marked stridulous respiration. Œdematous condition of epiglottis; extensive ulcerations of both vocal chords, as also the subglottic region. At present, stridulous breathing completely gone; no pain in deglutition; the patient eats potatoes and other solid food without trouble. Local improvement marked.

Fourth case: male; forty-five years. Œdema of epiglottis, aryepiglottic fold; ulcerations of larynx; juxtaposition of the vocal chords, with stenosis of the larynx. This condition improved and the swelling decreased greatly. To-day an injection of one decimilligramme was given and a serous exudation has taken place in the larynx, seemingly in conformity with the theory of Prof. Liebreich. The patient coughs continually a fluid greatly resembling saliva. His general condition is not so good. The injections have produced strangury.

Fifth case: fifty-five years. Case of ulceration of the right vocal chord. This ulcer has completely healed after a few injections, the hoarseness disappeared and the cough became much less. The patient of his own accord says he is completely cured and perfectly well.

After the injections strangury is frequent, tenesmus and hæmaturia less often complained of. Fraenkel found that the bacilli tuberculosis in cases that were treated with cantharidin would not stain so rapidly as before, and some would not stain at all. It is necessary to let them remain in the staining fluid at least twenty-four hours. Fraenkel also found a decrease in the number of bacilli after the injections with cantharidin.

117 Garfield Place.—Cin. Lancet-Clinic.

Abstracts.

Surgery.

Cystoma of jaw.—Thos. H. Moore, D. D. S., M. D. *Medical and Surgical Reporter.* Mr. I— 46 years old presented himself for examination and a growth of three months was found to have involved the left half of the inferior maxilla, extending from the angle of the jaw, almost to the median line at the symphysis. The swelling was first noticed upon the lingual portion of the jaw, opposite the second inferior molar, and gradually increasing in size, made its appearance upon the buccal surface, extending anteriorly and posteriorly, until nearly the whole lower half of the jaw was involved.

A free incision was made to evacuate the contents of this tumor, which consisted of a dirty bran-like substance, mingled with glairy, blood stained fluid. Upon making further examination with the exploring needle, another, but smaller cyst, posterior to the one just opened, was discoved, having its connection by a small sinus opening into the first one. This was evacuated also, and the cysts washed out with tepid water. A stimulating solution of dilute tincture of iodine was injected, and the cavity packed with gauze this being renewed every few days, after injection of the dilute iodine, and complete closure was soon accomplished. No internal medication was required.

Upon questioning the patient relative to the cause for this tumor, he stated that he had placed a hard shell-bark between the two second molars of the left side of the jaw, and immediately after cracking it, had experienced a slight pain in the lower tooth. This evidently was the explanation for the formation of the swelling, as the excessive pressure upon the cancellated bone injured the endostium, producing an effusion, and this forming the nucleus for an extended but slow inflammatory action with the consequent results.

PLANTAR NEURITIS WITH RESECTION OF THE PLANTAR CUTANEOUS NERVE.—RECOVERY. T. J. Bennett, M. D. *Daniel's Texas Medical Journal.*—A negress about sixty years of age, with good family history, sought advice for severe pains in the soles of the feet. Upon examination immense callosities on the planter surfaces of both feet were revealed. This tissue was thickest near the heel, almost as hard as bone, and measured fully a quarter of an inch in depth. The patient had suffered almost continuously for twelve years, the seat of the greatest pain being located in the thickest part of the callous, radiating along the nerve distributions, and diminishing in severity toward the middle and phalangeal portion of the sole. The woman had previously enjoyed good health up to the first appearance of this trouble, and no history of the swelling of the feet or gout could be obtained.

The dense tissue was removed and emolient dressings applied, but in a few days the callous had returned and with it the pains as severe as ever. The surface after the hard layer had been removed, showed conclusively a local neuritis, being extremely sensitive and red. The callous had incorporated the nerve filaments an inflammation produced, which the pressure from walking had kept up.

It being thought that a resection of the nerve supplying the integument and fascia would probably afford relief, it was dissected and about half an inch cut away, and the wound dressed antiseptically, uniting by first intention. This gave prompt relief and after five months there has been no return of the pain.

CRANIECTOMY. Dudley Tait, M. D. *Pacific Medical Journal.*—The patient J. M.— aged thirty-eight years, in May, 1873, while carrying a heavy burden on his shoulder was struck in the back by a runaway horse and thrown against the curbstone, the wagon dragging him for a distance and then passing over both forearms. He was picked up unconscious, but rallied in about an hour. There was found on his body numerous contusions and a small scalp wound in the right temporal region but no sign of fracture. The wound healed without suppuration but symptoms of periostitis of the left ulna developed in one month, and it was four months before he left the hospital cured.

Seven months after the accident he began to complain of violent and constant cephalagia on the right side, and a purulent collection in the neighborhood of the superior external angle of the orbit was noticed. This opened spontaneously, affording him relief, but a fistulous opening resulted and the eyelid on that side became everted. The purulent discharge from this fistula varied in quantity according to the position of the head, in the erect position being very slight, while on the head being flexed, it was very free. The probe demonstrated the existence of a fistulous tract running directly backward about an inch and a half, and in such a direction that it was impossible to determine whether the probe was in the cranium or not. The symptoms present did not indicate compression or destruction of the nerve centers, the right eyelid being partly everted and a traumatic lesion of the cornea of the same eye was also noticed.

Having diagnosed necrosis an incision was made from the fistula running obliquely upward and backward three inches, and the soft part retracted, it was found that the necrotic action had envolved the entire thickness of the skull in the region of the anterior inferior angle of the parietal bone, the area of perforation resembling in size and shape the aperture made by the ordinary trephine, with the exception of the edges being rough and dark in color. The subjacent dura mater was thickened, very vascular and infiltrated with pus, and on the probe being passed through the necrotic opening the presence of a sequestrum was detected at a point situated two inches backward on a line with the temporal ridge. The adhesions of the dura mater to the skull had been destroyed by the suppuration, creating a large abscess sac, which measured five by one and one-fourth inches in surface and about one-fourth of an inch in depth, extending transversely and parallel to the ridge. The wound was irrigated thoroughly with bichloride solution 1-3000 and a dry dressing applied.

A few weeks later the necessity for further operation being imperative the entire scalp was disinfected and the former incision prolonged directly backward and the skull denuded in an area corresponding to the subjacent cavity. An ordinary trephine was used at each end of the incision, and two transverse parallel sections were made with the saw, one inch apart, connecting with the above points. The fragments were removed and the opening enlarged and the sequestrum taken out. The surface of the dura mater was curetted and a vast amount of purulent, infiltrated tissue removed, which varied from one-eighth to one-fourth of an inch in thickness. The hæmorrhage during operation was very slight. No ligatures were required, all the bleeding arteries having been twisted. The wound was packed with iodoform gauze and an absorbent cotton dressing applied.

The following day the patient seemed somewhat dazed, but suffered no pain. The dressings were removed, and the surface of the dura mater curetted until the healthy tissue was reached and reapplied. Adhesion took place rapidly and three days after operation the patient was about his room, and the suppuration had entirely disappeared by the twenty-fifth day. Considerable difficulty was experienced in obtaining a suitable cicatrix at the anterior angle of the incision in the region of the spheno frontal suture. The scalp would heal so rapidly that a small sinus would be left, but upon resorting to epidermic grafting it proved successful.

Three months and a half after operation patient was discharged cured, his physical condition greatly improved, and his present health is excellent.

EXCISION OF SUP. MAXILLA.—W. B. Rogers, M. D., *Texas Medical Journal.* Hudson B., 14 years of age, presented himself with a fibroid tumor of the left superior maxilla, which had existed for five years, but had grown very rapidly during the last two years. The left upper jaw was involved, protruded at least three inches forward, while superiorly it pressed visibly upon the orbital fossa, presenting considerable deformity. The left nasal cavity was completely occluded and the mastication of solid food was almost impossible owing to encroachment on the oral cavity. Some of the cuspids were situated along the lower part of the tumor but all outline of the alveola had disappeared. There existed no pain, or tenderness on firm pressure at any point, although the tumor was quite hard, creating the impression that it was due to hypertrophy of the osseous tissue. There being no

glandular involvement nor other signs of malignity, the excision of the mass was decided upon.

After anæsthetizing the patient, an incision was made and the flap turned back, bone forceps applied at the floor of the left nostril, cutting roof of mouth, and near inner angle of orbit, but below the floor of that cavity, and cutting the nasal process of superior maxilla. A small crevice was found between the growth and malar bone, into which a bone elevator was pressed and the tumor pried out, leaving behind the smooth surface of posterior wall of antrum, which limited the tumor, though pressed back well into pterygoid region. The floor of orbit was not removed, but the outer wall of nasal cavity had completely disappeared, leaving only the Schniderian membrane flapping in and out at each respiration. The tumor appeared to be a simple fibroma, there being no blood supply, originating in the antrum and by pressure expanding the cavity, causing absorption of its walls. Upon completion of the operation the cavity was packed with gauze, the flap replaced, and held firm by silk-worm gut sutures. The patient made a rapid recovery.

Vesical Calculi.—J. H. Johnson, M. D., *Southern Cal. Prac.*- M. H., forty-two years old, swallowed a brass pin at the age of three, and a few months after a large abscess formed in the right inguinal region. He recovered in several months and nothing more was noticed until he reached his fourteenth year, when he began to be troubled with severe itching in the head of the penis, which ceased, however, after much exercise. Two years later an abscess formed similar to the first and in the same place. This as before yielded to treatment, but two months after he passed a small calculus, one-fourth inch in diameter. His health now began to fail and when he reached the age of nineteen, a left lateral lithotomy was made and a calculus the size and shape of a small hen egg removed in which, when sawed in two, was discovered the brass pin. Six years after another calculus formed and was removed by a bilateral operation. He recovered his health, married and had no further trouble for about six years more when another stone formed and he came under my observation. As the first operation had been followed by profuse hemorrhage, and anæsthetics failed to work perfectly in the second, the third was delayed by him as long as posssible until pain was quite severe, and he became very much much emaciated. Lithotomy was then again resorted to.

The bladder was well washed with warm water, then with one-half per cent solution of carbolic acid. Chloroform was administered and a left lateral operation performed, removing an egg-shaped triple phosphate calculus, two and one-fourth inches in length and one and a half inches in its longest transverse diameter. In two weeks the wound had healed permanently and he began mining shortly after. He was advised to keep the urethra well dilated and wash out his bladder frequently, but as he neglected to do this, it was only one year before he noticed other calculi forming and just two years after the third operation a fourth was made and three small stones removed. The patient occasionally passed a small stone with his urine, but all progressed well until some five years later when he again began to be aware of the presence of another calculus which was removed, making the fifth lithotomy.

His condition was not good when he submitted to this last operation, being in a very emaciated state. The chloroform was taken badly and four hours afterward he began to vomit, temperature rose to 103, but the next morning fell to normal. The wound did not heal very rapidly and broke open again in a week, a very small calculus escaping through; but soon after it healed permanently and the patient made a good recovery. He was advised to wash out his bladder daily with a three per cent boracic acid or weak bichloride solution, but on account of his occupation has not been able to do this so frequently. The nephritic colic from which he has suffered from his youth, increases with his age, and the attacks are always followed by the passage of small caculi. He now keeps the urethra well dilated and passes without much difficulty two or three rather soft stones. Health remains good and although nearly two years since the last operation, he thinks he can detect no presence in the bladder of any calculus.

Papilloma of the Larynx.—J. A. Thompson, M. D., *Cincinnati Lancet-Clinic.*—J. R. B., an American, thirty-one years old, presented himself at Clinic, complaining of hoarseness, and pain in the throat after eating, with cough only in the evening. He was completely aphonic, speaking only in a rough whisper. Was not able to learn of any cancer or tuberculosis in the family, but he admitted having had gonorrhœa and chancroids, denying constitutional infection. On examination there were no enlarged glands, cicatrices or nodes found and the first laryngeal symptoms were developed very suddenly after a fever, commencing with hoarseness and difficulty in speaking. This grew rapidly worse and dyspnœa, cough, dysphagia and aphonia were added. This latter symptom was greatly increased after any great exertion, and he was obliged to give up professional base ball playing on this account. Later he became the driver of a coal wagon, but was obliged to relinquish this also.

The laryngoscope showed a grayish white mass filling the anterior portion of the left ventricle, the anterior two-thirds being hidden by the mass, which also overlapped the right cord. The glottis was closed anteriorly and much narrowed posteriorly by the growth, which had crowded against the base of the epiglottis, evidently causing the pain after eating. The shape of this cartilage made the exact site hard to determine as it hid the base of the growth, and so closely were the little tumors implanted that it seemed a solid foundation.

After anæsthetizing the throat with cocaine, the forceps were guided down to the tumor, and as much as could be grasped removed. Two large and three small papillomata were taken from the left ventricle, but another growth on the under surface of the cord could not be reached. Considerable hemorrhage occurred, but gave no serious trouble and breathing was much freer after the partial removal of the tumors. The patient was given an inhalation to use, of tinct. benzoin comp. and as there was very little inflammation two days after, the removal of the remaining growth was attempted. By passing the tip of the forceps below the cords, opening and pressing them to the left side, all the visible tumors were taken away. The next day upon examination, part of another was visible, which had probably been hidden under an adherent blood clot, the other part evidently had been

removed with adjacent growth. The patient returned to work and in ten days stated that he had coughed up this portion of the papilloma some few days before.

He was still hoarse, but could talk without effort, and there was neither dyspnœa nor dysphagia. The left cord was still congested and the ventricular band swollen. This shortly disappeared and a month after the appearance of the larynx was normal.

Excision of Lupus of the Face, with Immediate Skin Transplantation.—Dr. Geo. Ryerson Fowler, in the February number of *The Brooklyn Med. Journal*, reports the case of Mrs. O'B., aged 65, who presented herself for examination having a well-marked lupus exedens of the nose, which involved the entire integument with the exception of a small point at its tip, extending over the cheek to the inner canthus of the left eye.

The patient stated that many years before she noticed what appeared to be a small pimple upon the left side of her nose, which after several years began to ulcerate, spreading over the immediate area of surrounding integument, until at the time of coming under my observation the surface involved measured 5 ctm. in a vertical direction by 7.5 ctm. transversely. An operation was advised and performed, the entire diseased portion being circumscribed by an incision, which extended through thickness of skin to the subcutaneous cellular tissue, including all suspicious tuberculous tissue, and stopping short only of periosteum and bony structures. Hot salt water compresses and firm pressure arrested hemorrhage and the wound required only one ligature.

After thorough disinfection of patient's left arm nine strips of skin were immediately transplanted upon the nose and face from which the lupus tissue had been removed. The parts were dressed with oil silk, covered with several thicknesses of gauze, wet with a sterilized salt solution the whole being held in place by a firm gauze bandage. This dressing was removed in three days, the oil silk not being touched for fear of disturbing the transplanted slips, they, even at this short interval having secured a hold. The dressing was repeated every two days and the oil silk found to be efficient in maintaining the necessary moisture essential to success in skin grafting.

After a short time the edges of the transplanted slips which had been permitted to overlap in order to provide for shrinkage, were trimmed with great care, leaving sufficient of the slip to prevent the formation of cicatricial tissue at the point where these joined the limits of the circumscribed area. In fourteen days the healing was complete and there has not been the slightest evidence of a recurrence of the disease.

Necrosis of the Maxillary Bones After Measles. J. F. McCarthy, M. D. *Med. and Surg. Reporter.* Was called to see an eight year old boy, and found a mild form of measles fully developed. Three days after a severe pain commenced in his left ear, and the left jaw was somewhat swollen, and red. Hot applications were applied to the jaw and ear, and five minims of tinc. of opium administered. Temperature was 103½, pulse 140, and respiration 54 per minute. As there was considerable constipation, a laxative powder was prescribed, and a jacket of greased flannel covered with oil silk placed over lungs, as capillary bronchitis was marked.

Three days after two incisors and the canine tooth of the left upper jaw protruded from their sockets, and the little boy was unable to open his mouth over one-half inch. The teeth gradually became loose and were easily removed, and upon examination of the bicuspids they were also loose. There was an exceedingly disagreeable odor, but very little suppuration, but this was syringed out with bichloride solution. Two days after the remaining teeth in the left upper jaw were taken out and the condition of boy gradually improved although the face was much swollen, the left eye being entirely closed. The mouth could not be opened sufficiently to allow of a careful examination, but a large piece of loose bone was discovered. Iodide of potassium was given with tonics, and the boy continued to take liquid foods, but in another week the teeth all became loose in the left side of lower jaw, except the last bicuspid. The swelling of face was reduced and the patient felt stronger.

Fifteen days after, chloroform was administered, the mouth was forcibly opened, the loose bone grasped with the forceps and taken out. The left superior maxillary was removed from the median line to the zygomatic fossa, including all the alveolar process and up to the palate bone on the internal surface, leaving only the orbital surface. The palate bone was left intact. Two weeks after, the alveolar process of the left side of the lower jaw was removed, leaving the last bicuspid.

Six months after the boy showed no deformity of face except when laughing or whistling. The eye was perfectly straight and the superior maxillary was reproduced; three new teeth just making their appearance. In the lower jaw all the old teeth were replaced by new ones.

This case is interesting from the fact that the rapid destruction and separation of the parts was followed by the almost complete reproduction of them and occasioned no marked deformity.

Compound Fracture of the Skull.—J. J. Martinez, M. D., *N. Y. Med. Jour.*—J. M. A., a boy of seventeen, and of a fairly healthy constitution, fell from the platform of a car and alighted directly on his head. When picked up he was in a complete state of coma, with loud breathing and slow pulse. The physician who was called found a lacerated wound of about three inches, stellate shaped, and about the region of the ascending frontal and of the ascending parietal convolutions, near the median line, but to its left side. The fractured bone pressed on the brain, but no attempt was made to relieve this condition, the ragged edges being sutured, and bichoride solution applications made. This treatment was continued for ten days when the boy came under my observation. The statement was made that the patient began to rally about three hours after the accident; was speechless and with hemiplegia of the right side, severe pain in the head and in six hours gained his consciousness.

Upon examination the head was found a mass of pus and hair, wound very ragged, the sutures had all torn through and there was a very offensive odor. The patient was perfectly conscious with complete aphasia and right hemiplegia, defecated and urinated involuntarily. He showed symptoms of pus absorption in daily chills and profuse perspiration and on retracting the wound a large piece of bone was entirely

fractured off from the cranial vault, pressing on the brain.

An immediate operation took place, the patient being anæsthetized and the lower angle of the wound extended down to the bone, trephined in that situation, the button removed entire, and after biting off with the rongeur all the projecting spicula of bone, was able to remove the fractured piece without injury to the brain. Another particle of fractured bone was found at the left and superior angle of the wound, lying under the skin, and extending that angle of the wound was able to extract it with ease. The meninges were torn and the brain extremely congested but there were no soft spots. A hole remained in the skull of about two and a half inches in diameter. Powdered iodoform was used freely on the wound.

Two days after the conditions were much improved although the brain protruded slightly through the wound. A cerebral hernia was commencing to form and grew very rapidly until the tenth day when it was the size of a fist. An application of a 50 per cent alchoholic solution of 1 and 3,000 bichloride was used for six weeks, there being a marked diminution of the tumor, but it preserved a hard and healthy consistency. The boy gradually regained his speech and the use of his limbs. Two months after the operation he left his bed, the tumor completely reduced and a thick tissue of new formation covering the opening in the skull. He was in good physical condition, having gained flesh during his confinement.

Foreign Body in the Ear.—In the Trans. Am. Otol. Society for 1889, Dr. Sutphen, of Newark, reports the case of a young man who had carried a pea in his ear for nineteen years. Some wax had collected around the shriveled pea and caused some deafness, which was entirely removed by washing the pea and wax out. Had the pea been a sharp, angular substance, it is most likely would have early excited suppurative inflammation.—*St. Louis Medical and Surgical Journal.*

Medicine.

Folliculitus Caused by Mineral Oil. D. W. Montgomery, M. D. *Pacific Medical Journal.*—It has been observed in the large spinning factories in the north of France that almost all the male employes were affected with a papular and papulo-pustular inflammation of the hair follicles and surrounding tissue. This usually made its appearance on the anterior surface of the thighs, calves of the legs, and sometimes on the upper extremities. It is the custom of the workmen, having charge of the machinery to wipe their oily hands on their trousers and saturate them with the worst kind of mineral oil. By the continuous contact of the oily trousers with the skin a folliculitis or even a perifolliculitis is set up. Upon removing the cause the disease gets well in a few weeks without treatment.

Chronic Nasal and Pharyngeal Catarrh, Caused by Arsenic.—Dr. D. W. C. Hood, in *Lancet*, reports being consulted by a gentleman aged 42, for a severe cold in the head, from which he had suffered for several months without relief. The lungs, head and urine were found to be normal, throat not sore, but slightly uncomfortable symptoms were felt in the morning, and considerable coughing took place. The patient was advised to try sea bathing which he did for two months, and his physical strength much improved thereby, but at the expiration of that time the cold in his head was no better.

Arsenic was now suspected of being the exciting cause of this constant catarrh, and upon inquiry it was learned that as the patient was suffering from premature baldness, a hair doctor had prescribed a hair wash, which upon examination was found to be heavily charged with arsenic. This had been applied daily to the scalp and allowed to dry, the catarrhal symptoms appearing in about two weeks after the first application. Upon discontinuance of this wash the unpleasant head trouble disappeared and did not return, There remained but little doubt that the poison was absorbed from an unbroken skin, and caused no irritation of skin, stomach or bowel.

Obstetrics.

Case of Extra-Uterine Pregnancy.—J. W. Carhart, M. D. *Texas Medical Journal.*—In August, 1890, was called to see Mrs. V., 25 years of age, and on digital examination per vaginam found a tumor about as large as hen's egg on the right side of the uterus, in the region of the right Fallopian tube, some little lower than the tube, and seeming to involve the broad ligament. No fluctuation could be detected, nor inflammation, but the lady complained of constant pain, extending at times down the right thigh. A distinct sulcus was clearly definable between the tumor and the fundus uteri, and the bladder appeared to be somewhat crowded, as she was troubled with a frequent desire to micturate.

The battery was used with a light current, the negative pole in close proximity to the tumor, a glycero-cotton tampon placed in the vagina, and tincture of iodine applied externally. This treatment was continued daily for over a month, and after making a careful examination was convinced that it was a case of tubal pregnancy. As the patient was thin in flesh, relaxed, and somewhat anæmic the outlines of the tumor could readily be made out. The following day after thorough antiseptic precautions an aspirating needle was introduced into the tumor through the vault of the vagina, and after penetrating to the depth of about three quarters of an inch, resistance was distinctly felt. Some blood was withdrawn with no amniotic fluid and it was thought that the needle had struck a multilocular cyst, passing through one sac and striking the walls of another.

A few weeks after this the patient suffered considerable pain for several hours, followed by quite a hæmorrhage. The next day in consultation the diagnosis of tubal pregnancy was made. The depression between the tube and uterus, though distinct was lessened from first examination and the fundus uteri had enlarged somewhat, probably from the presence of blood clots.

A Barness bag was introduced into the womb with a silk cover to control dilatation, and with a surgical pump dilated to its full capacity. No anæsthetic was used, as the patient did not complain of pain. The next morning at an early hour, being hastily summoned to the lady, found a loop of the prolapsed cord protruding some three or four inches. The tumor had lessened and become one with the fundus. The neck of the womb was shortened; the canal patulous, and by a little effort the feet could be detected. The fœtus was delivered in a short time, followed quickly

by the afterbirth, which was evidently in the tube and could be felt to contract, as the placenta passed out into the womb. This latter showed extensive fatty degeneration, but the fœtus was well formed, five and a half inches in length and of four months gestation. Recovery was slow but uneventful.

Ophthalmology.

SYPHILIDE OF THE CONJUNCTIVAL SURFACE OF THE UPPER LID OF EYE.—Le Roy Dibble, M. D.—*Kansas City Medical Index.*—J. E. C., twenty-eight years of age, an American by birth contracted syphilis about nine months ago and secondary symptoms began to appear about a month later, before the primary lesion had healed. Two months from the contraction of the disease his face was covered with pustular syphilides, this proving so virulent that he was advised to visit Hot Springs, Ark., which he did a few weeks after, his face then being covered with dried scabs resembling oyster shells.

The right malar bone was covered with one of these scabs, which had ulcerated beneath until it had destroyed the tissues down to the bone, and black, hard crusts covered the whole forehead underneath which was confined an ichorous pus. This had destroyed the tissues down to, and in two places included the periosteum.

He was immediately put on constitutional treatment, in connection with the daily bath, and by softening the crusts by local applications the edges were lifted and the pus removed. This was followed by great improvement, but in about a week there appeared on the ciliary border of the upper lid of the left eye, what was supposed to be an ordinary stye, but which did not yield to treatment.

Upon careful examination a syphilide covering over two thirds of the conjunctival surface was found, the tissues in one place being destroyed down to the cartilage. It had hard, indurated, raised edges, a lardaceous center, and exuded a tenacious, creamy pus. On everting the lid of the right eye, there appeared a small one near the outer canthus. Iodoform was dusted on the ulcer twice a day and in three days there was a great improvement as the ulceration had ceased, and the tissues began to assume a slight healthier appearance and for the several weeks that he remained, there was an uninterrupted improvement. The lid presented no unusual appearance and there was a happy termination of what looked at one time like a complete destruction of it.

THE TREATMENT OF CORNEAL ULCERS BY THE ACTUAL CAUTERY.—G. E. De Schweinitz, M. D. *The Medical Progress.* The actual cautery has become a well nigh indispensable instrument in the management of certain types of ulcerative keratitis. A certain amount of difference of opinion exists as to the character of cases to which the heated point of either a galvano or thermo-cautery should be applied, although there is practically unanimity among all who have had any experience, that the actual cautery is the best radical destroyer of the sloughing tissues found in ulcers of mycotic origin, typified by the serpentic ulcers of the cornea. The use of the instrument has not been limited to serpentic ulcers, but in addition, in scrofulous abscess, both marginal and central, vesicular keratitis with a patch of infiltration at its apex, parenchymatous corneal abscesses occurring in trachomo, and even examples of xerosis of the cornea.

Cases successfully treated with the cautery include small central ulcers in children of bad nutrition, which either through neglect or imperfect treatment, have tended to form an abscess. Shallow central ulcers in scrofulous patients, the ulcer having a slightly turbid base, very chronic in its course and declining to heal under ordinary remedies. Phlyctenular ulcers, beginning in the form of small pustules at the corneal border—speedily ulcerating and surrounding themselves by a yellow area of infiltration, and with a strong tendency to perforate. Infecting or sloughing ulcers associated with pus in the anterior chamber, or in other words, hypopyon keratitis. Marginal ring ulcer, or that form which is sometimes seen in purulent ophthalmia, occurring just at the circumference of the cornea, often covered up by the chemotic conjunctiva, and very likely to perforate, because it is hidden by the swollen tissues and not observed. Herpes of the cornea, either ulcer associated with herpes zoster ophthalmicus or herpes of the cornea in a vesicular eruption, leaving an ulcer.

Various forms of cautery have been employed, and either a delicate probe suitably made of platinum, or an ordinary steel needle about the size of a knitting needle, can be made to answer. A few drops of cocaine are instilled to produce anæsthesia, and a Bunsen burner placed adjacent to the head of patient, the probe heated red hot, transferred to point of disease, and all the sloughing material gently but thoroughly cauterized, without undue pressure. The lids are slightly parted during operation, and after the application the eye may be washed out with a solution of boracic acid, a drop of atropia instilled and a bandage applied. The next day the ulcer will generally be found cleaner, and healthier, the surrounding cornea less nebulous, and if there has been any pus in the anterior chamber, it has been absorbed. Usually one application is sufficient, but if necessary it may be repeated on the third or fourth day, if the original destruction of tissues has not been complete.

The after treatment is generally the same as for an ordinary corneal ulcer, and the scar formed is not larger from the use of the cautery, than would have been from the simple healing of ulcer.

BLACK EYE.—*Medical Times.* There is nothing to compare with a tincture or strong infusion of capsicum annnum mixed with an equal bulk of mucilage of gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's hair pencil, and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, the treatment will invariably prevent the blackening of the bruised tissue. The same remedy has no equal in rheumatic, sore or stiff neck.

Therapeutics.

POKE BERRIES A SATISFACTORY ANTI-FAT.—Several years ago, I called attention to the efficacy of pills made from the extract of poke berries as a reliable remedy in obesity. My attention was attracted to it from the fact that birds that feed on poke berries in the Fall are deficient in adipode tissues. It has been my custom for several years to gather, in the Fall after frost, a quantity of the berries, express their

juice, and evaporate it to the consistency of an extract, of which I make pills of three or four grains. The dose is two pills before each meal, sometimes increase to three or four. They diminish the appetite to some extent. In some cases the reduction of weight is remarkable, as much as fifteen to twenty pounds per month.—M. M. GRIFFITH, M. D., in *American Hom.*

USE OF IODINE IN INFANTILE SCROFULOSIS. *The Med. News* says Tincture of Iodine may be administered to very young infants in the dose of a drop a day diluted with a small quantity of barley water or milk. Besnier uses iodoform in minute doses for the same purpose in infants.

THE TREATMENT OF ALCOHOLISM BY STRYCHNINE. —Dr. Pombrak, writing in the *Meditsinskoe Obozrenie* on alcoholism, describes seven cases treated by hypodermic injections of strychnine—a method that seems especially in favor in Russia, where, however, it must be remembered, drunkenness presents, as a rule, forms somewhat different from those prevalent in this country. Dr. Pombrak found strychnine a very valuable remedy, both in cases of chronic alcoholism and in those of dipsomania, not merely curing the attack, but abolishing the desire for drink. Even attacks of delirium tremens were influenced beneficially. The treatment must be carried out in a systematic manner, and must frequently be kept up for a very considerable period. As to the dose, Dr. Pombrak, in cases of moderate severity, commenced with $\frac{1}{30}$ of a grain; in more serious ones, with $\frac{1}{15}$. He found that, while the treatment was being carried out, there was no necessity to order the patients to abstain from the use of spirits, as they always did so of their own accord.—*Lancet, May 3, 1890.*

HYOSCYAMINE IN PARALYSIS AGITANS.—The best remedy for relief of, but which cannot cure, *paralysis agitans*, is hyoscyamine, gr. $\frac{1}{120}$ twice a day. Do not produce the active effects of the drug.

APOMORPHINE IN CROUP.—Dr. Alexander F. Samuels (*Therapeutic Gazette*) finds apomorphine of the utmost value in croup. He dissolves a $\frac{1}{4}$ grain pellet in six teaspoonfuls of water and gives a teaspoonful every five or ten minutes until emesis results. The second or third dose usually does the work. When the child is past swallowing, the remedy is given hypodermically, of course in less water. He has no dread of croup if only he has the apomorphine pellets with him.

THE SUBCUTANEOUS USE OF ERGOTINE IN DIABETES AND ALBUMINURIA.—According to the observations of Dr. Deheune, ergotine, or ergotinine, given subcutaneously, will cause the temporary and often the permanent disappearance of the glycosuria, polydipsia, polyuria, emaciation, and weakness of diabetes. These symptoms disappear in a regular order; the polyuria and polydipsia disappear after five to eight injections; the glycosuria lessens after the second or third injection, and disappears after the tenth or twelfth. The glycosuria reappears if the treatment be stopped too suddenly. This disappearance is permanent after six or eight weeks of treatment. The injections are perfectly harmless. By this treatment diabetics can be prepared for any surgical operation, particularly cataract. He injects six to ten drops, sometimes more, daily.—*L' Union Médicale.*

LOBELINE IN SPASMODIC ASTHMA.—Dr. Silva Nunes. —The author of pamphlet recommends lobeline in gradually increasing doses, from $\frac{1}{2}$ grain to 3 grains in pill, every two hours for the treatment of spasmodic asthma.

CAFFEINE IN PULMONARY DISEASE.—"Te Gempt" "Med. Rec." claims that the double salt caffeine is indicated in the course of acute fibrinous pneumonia when the heart begins to be enfeebled, the blood-pressure of the aortic system lowered, or when the pulse becomes unusually frequent or irregular. The use of the drug should be begun before symptoms of collapse appear. It should be used at the beginning of the disease in debilitated persons, drinkers, old people, and in subjects of cardiac disease. When used at the proper time and in sufficient doses, it diminishes the frequency of the pulse and of the respiration, and increases arterial pressure, lowers temperature, and produces a sensation of well-being. It may, if necessary, be given by hypodermic injections. After the period of apyrexia it is unnecessary to continue its administration. In atelectasis, hypostasis, emphysema and pulmonary asthma, the double salts of caffeine are indicated, as in heart diseases.

COCAINE IN TYPHOID FEVER.—When stimulus fails to maintain the pulse and heart's action in *typhoid fever*, Prof. Da Costa states that cocaine has given him most satisfactory results. It will sometimes establish convalescence rapidly when, under stimulus, the cases seem to be rapidly failing. A case shown at the Pennsylvania Hospital, which was receiving ℥ xij of whiskey in 24 hours, and with no response, began at once to improve on gr. $\frac{1}{4}$ of cocaine every two hours, afterward increased to gr. $\frac{1}{2}$ every third hour; the whiskey at the same time being kept down to ℥ viij.

DEAFNESS TREATED BY PILOCARPINE.—Pilocarpine would appear, according to Corrado Corradi, to be very serviceable in the treatment of deafness, due to labyrinthine derangements, whether associated or not with disease of the middle ear. Large doses may be required. In one case two centigrammes of pilocarpine were injected twenty-four times. Moos has injected from five to eight drops of a 2 per cent solution in cases of deafness resulting from diphtheria. Considerable improvement of hearing resulted even in cases in which deafness had existed for three weeks. Care is required lest the pilocarpine should increase the debility of post-diphtheritic cases.—*Lancet.*

HYOSCINE IN NERVOUS AFFECTIONS.—Hyoscine has become a prominent remedy for diseases of the nervous system, particularly acute mania. It is a hypnotic and powerful sedative. The dose should be very small at the commencement of the treatment in nervous disorders, as some persons are quite susceptible to its poisonous influences. $\frac{1}{60}$ of a grain is a fair dose of hyoscine.

AGARICIN IN NIGHT SWEATS.—Few practitioners, says *Technics*, appreciate the exceedingly great value of agaricin as a remedy in night sweats, especially those of phthisis. The most profuse sweat is checked almost like magic, with a single dose. It operates by diminishing thirst and increasing the secretion of urine. The dose may be pushed to the extent of one grain in the course of twenty-four hours. The single dose for an adult is from one-eighth to one-fourth of a grain.

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

THE ninth annual commencement of the College of Physicians and Surgeons took place at the Grand Opera House, March 24th, and forty-two graduates received their diplomas through the acting President, Prof. S. A. McWilliams. The doctorate address was delivered by Prof. F. E. Waxham, which we are pleased to publish in full in this number of the Reporter. W. M. Tanquary, the valedictorian, thanked the professors in the name of "class of 1891" for the attention they had received at their hands, and expressed the feeling of the graduates at the interest which had been taken in their behalf during the past session. In the evening a banquet was given at the Sherman House which was largely attended.

Congress of American Physicians and Surgeons.

The meetings of the Congress of American Physicians and Surgeons will be held in Washington from 3 to 6 P. M., September 22d, 23d, 24th and 25th, 1891. William Pepper, Chairman of the Executive Committee.

The Proposed Removal of the Journal of the American Medical Association to Washington.

It is gratifying to learn that the majority of the members of the A. M. A. are in favor of keeping the organ of the Association in Chicago. This is as it should be. Chicago is the center and the Journal having been established here can prosper as nowhere else if properly handled. We acknowledge its past discrepancies. Overshadowed by paternalism and run chiefly in the interests of fossilism and medical families, with an utter disregard for the interests of the progressive men in the profession, and complete indifference to the welfare of the Association's own members, what could one expect of it? No attention has been paid by the Journal to the Chicago profession, and very little to the work of the American doctor in general. Flunkeyism and toadyism have been its watchwords, and how could the management expect the support of the Chicago profession. Papers sent to it have either been mangled by presumptuous "book" editors or lost by the printer or his devil. Its editorials have been farmed out by the men who were paid to do the work, and farmed out to medical friends. The Journal has had no virility and no individuality; it has been a namby pamby "patent insides" organ, instead of a worthy representative of a great Association.

In justice to the present editor we will acknowledge the recent improvement in the status of the Journal. But more progress is necessary and it can be accomplished only by an infusion of new blood. Chicago is not lacking in editorial material. Moyer, Kiernan, Clevenger, Bayard Holmes, Jaggard, Hoag, and many others have the right stuff in them for such a position. Whoever the new editor may be, let him be a man with experience, energy, brains and capacity for hustling. He must have sufficient time to do the Journal justice and earn his salary. Above all, he must be young enough for work and old enough for wisdom. It is not necessary to rob either the cradle or the grave in order to secure an editor for the Journal.

OBITUARY.

Dr. Charles T. Parkes.

One of the grandest figures in the medical history of Chicago has passed away. In Dr. Chas. T. Parkes we have lost a man who was alike a credit to society and to our profession. Stricken down when at the height of ambition and success, his death is a warning to those of us who forget their personal welfare in the competition for fame, for it is certain that to neglect of himself and overwork the death of Dr. Parkes was directly due. The following eloquent tribute to his memory is from the pen of his devoted assistant, whose close association with Dr. Parkes has made him feel all the more keenly the loss of one who was undoubtedly his best and most valuable friend:

"Dr. Chas. T. Parkes was born August 19th, 1842, at Troy, N. Y., the youngest son of ten children, five of whom survive him. His father, Joseph Parkes, an Englishman, came to Chicago in 1860. At that time the Doctor was a student in the University of Michigan, from which institution he afterward received the degree of A. M. He enlisted in the army in 1862 as a private and was discharged three years later as a captain, his promotion being the result of mental energy and bravery.

At the close of the war he returned to Chicago and began the study of medicine as a special student under Dr. Rae, Professor of Anatomy in Rush Medical College. He was graduated from this college in 1868, and was at once appointed Demonstrator of Anatomy. This position he held until his appointment as Professor of Anatomy in 1875.

His remarkable success as a teacher of anatomy, arising from a most thorough knowledge of his subject and a most clear and concise method of demonstration, not only excited enthusiasm and love in all his students, but also gained for him a wide reputation as a most able anatomist. In 1887 he was elected Professor of Surgery—successor to Prof. Moses Gunn—and in this position he was gaining world-wide renown at the time of his death, which occurred after a short illness from pneumonia March, 28th, 1891. At this time he held the position of Treasurer of Rush Medical College. He was attending surgeon to the Presbyterian Hospital; surgeon-in-charge of St. Joseph's Hospital; surgeon-in-chief to the Augustana Hospital; consulting surgeon to the Hospital for Women and Children, and Professor of Surgery in the Chicago Policlinic. He has held the Presidency of the Chicago Medical Society and the Chicago Gynæcology Society.

As a surgeon and as a teacher of surgery Prof. Parkes had few equals and no superiors. His diagnoses were positive and almost invariably correct, even

in the most difficult cases. His comprehensive mind grasped all the conditions present and at once constructed a complete clinical picture. All surgeons possess to a greater or less degree the faculty of intuition; in Dr. Parkes it amounted to genius. His extraordinary success with the most formidable surgical cases was due, first to his clear judgment and his great manual skill and dexterity, and next to his most concientious care for the minutest detail which might insure to his patient all possible chance for recovery. He never spared himself; he always gave the best of his knowledge and of his strength. His observation was most acute, his mind retentive; by means of which he accumulated a wealth of experience which his active intellect applied without hesitation. When spoken to concerning the rapidity and masterly manner with which he disposed of case after case, his usual reply was: "If you know what you wish to do and how to do it, it is not necessary to be all day about it."

A man of large heart and tenderest sympathy, he was considerate and gentle with rich and poor alike. It was most touching and beautiful to see this man of enormous frame handle a pauper child with the tenderness of a mother. And he was as generous as he was kind; many are the poor whom he not only treated free of charge, but at the same time supported at the hospital.

Dr. Parkes' literary work began with a very important paper on gunshot wounds of the abdomen, based upon original experiments and demonstraticns —the first work of its kind in this country. Of late years his writing consisted chiefly of the report of clinical cases of great interest and in the publication of his clinical lectures. During the past few years he had begun to accumulate material for a work on Abdominal Surgery and one on General Surgery, but unfortunately these works are not near enough completion to be available for publication.

Dr. Parkes was a warm friend of the student, the fellow practitioner and the patient. His sudden and too early death has brought the profoundest sorrow to hundreds whom he had educated and to thousands whose sufferings he had relieved. During the last illness of Prof. Gunn he talked much of his college as he had known it during the changes of the past twenty years, and he spoke frequently of his personal relations with Dr. Parkes, first as a student, afterwards as an assistant—of his rapid and steady advancement in his profession, his growth in popularity; and paid this tribute to his colleague: "I know of no one in whose hands I would sooner trust my life and my reputation and my property."

A. J. Ochsner.

Dr. H. D. Garrison.

It is with regret that we announce the death of Prof. Garrison. The following tribute from one of his friends, offered at the funeral is worthy of repetition.

Prof. E. S. Bastain, of the Northwest University, his life long friend, spoke in tender pathos over the remains of the life, aims, work and accomplishments of the deceased. After this reference he paid this tribute to his memory:—

"I should do scant justice to the memory of Dr. Garrison if I did not speak of his relations to the philosophical thought of the time. He was a chemist, a psychicist, a naturalist, but he should not be estimated as a mere specialist. He was pre-eminently a philosopher, and as such deeply interested and closely identified with the great intellectual movements of our time. He was a believer in the modern *renaissance*, and accepted unflinchingly the petty persecution and social obliquy for teaching a doctrine so repellent to the traditions of society and of the church. I do not believe he would have flinched had he lived in the days of Giardano Bruno and seen before him the martyr's pyre."

The pall bearers were selected from the faculty of the college of pharmacy and the grand army post, and taken to Graceland cemetery for interment.

No religion, nor pretense of religious ceremony marred the funeral of this scholar, philospher and friend.

Prof. Garrison was born in Dearborn Co., Indiana, October 5, 1834, and completed his studies in a Cincinnati medical college. At the breaking out of the rebellion he served as first assistant surgeon in the Fourth Indiana Volunteers. After Appomatox he returned to Cincinnati and practiced medicine for a while. He then came to Chicago and established the drug firm of Garrison & Clark, which continued for years at 511 State street.

The enterprise and public spirit of the doctor is manifested by the fact that he, shortly after coming to Chicago, became the leader in the founding of Bennett Medical College, where for years he filled the chair of professor of chemistry. In 1878 he resigned his chair and started on a year's lecture tour in the Old World. His reception in London was brilliant and all that could be desired, considering the radical lectures he gave on "evolution" and "Astronomy." While in the world's metropolis he met and won Miss Marie Harold, who survives him. He had started out on a professional tour, but it ended in a honeymoon. After several months spent in Rome, Egypt and the Holy Land, the professor with his bride, returned to Chicago; where he accepted the chair of chemistry in the College of Pharmacy, and later was created dean, a position he retained until November last. He then resigned with the purpose of again entering the lecture field, to which he hoped to devote the remaining years of his life. He proposed giving ocular demonstrations of the truths of astronomy and geology, as he doubtless possessed the largest collection of photographic views on scientific subjects of any individual extant. His lecture season had advanced but two weeks when he was stricken down by illness, but which at first was not considered dangerous. Prof. Garrison was an authority on the subjects of astronomy, geology, and paleontology, and the author of several books and pamphlets of almost world-wide renown.

Shortly after his return from Europe, Prof. Garrison organized the Evolution club and has since been its foremost advocate and supporter. He was a distinguished member of the American association for the advancement of science, and contributed much to its scientific literature. He was also a member of Geo. H. Thomas post, G. A. R., the Sunset club, the Lantern slide and the Camera club and other organizations.

It was only a short time ago the professor requested the writer to represent him in a discussion in one of

the many organizations to which he was attached, the former being prevented by the illness which finally proved fatal.

It was the doctor's wish that his body should be turned over to some medical college for scientific purposes, but his widow demurred to this, though consenting to an autopsy which was conducted by leading Chicago physicians. The brain was found to weigh 60 ounces—only four less than that of Humboldt. The cause of death was cerebral apoplexy, superinduced by the bursting of a blood-vessel at the base of the brain.

So conscientious and devoted was he to the liberal cause that, even while holding such responsible positions, he several times engaged the Grand opera house, and, at great financial loss, gave a course of scientific lectures—the best demonstrations of the evolutionary theory ever given in this city.

Garrison believed in "calling a spade a spade," to use an expression of his own. He was not only free from superstition himself but he did not cringe nor cater to the superstitious. Prof. Garrison was a moral hero, who made sacrifices that others, less bold and defiant, might safely tread the path of life. He had a wholesome contempt for a large class of liberal hypocrites—quite numerous in our midst—and he despised cant in every form. As a friend he was firm, stanch and unwavering; as a man and a citizen, he was as honest in his transactions as he was chivalrous in his opinions. In these periods of hollow pretense and hypocrisy the cause of liberalism can illy spare such an example of truth and honor. In the death of Prof. Garrison aggressive liberalism loses an intellectual giant.

CORRESPONDENCE.

A Newspaper Attack on Dr. Love.

CINCINNATI, March 10th, 1891.

The Chicago *Inter Ocean* has recently published a series of severe criticisms on Dr. I. N. Love, of St. Louis, purporting to be a commentary upon a recent article of Dr. Love's anent the recent appointment of a negro on the Illinois State Board of Health. The criticisms of the *Inter Ocean* must amuse Dr. Love greatly. In the first place, the *Inter Ocean* is compelled to chew a piece of nigger now and then to preserve its political identity and prestige. So Dr. Love must excuse the paper for that. Another point that Dr. Love does not know is this: The *Inter Ocean* is edited with a shovel, and by a gossipy and garrulous quidnunc, whose infraction of the law in wearing breeches must soon be taken cognizance of by the proper authorities, else the community will become completely demoralized.

Any one who has a private grudge to satisfy has only to throw his envenomed stuff upon this old woman's desk, and it is immediately dragged into the editorial, or, at least, the news columns. Some envious doctor is now after Dr. Love's scalp, and is using that journalistic courtesan, the *Inter Ocean*, to vent his spleen; but nobody reads the *Inter Ocean* if he can help it, and the green-eyed one is wasting his breath. The entire profession of this country recognizes in Dr. Love one of our ablest and brightest men. He should treat such organs as the Chicago *Inter Ocean* with silent contempt. It would pay Mrs. Willing Catch-penny Nixon to take a trip to St. Louis and meet Dr. Love. Such people as Nixon seldom have an opportunity of meeting such genial, whole-souled and intellectual men as Dr. Love. W. B. K.

The Variation of the Intensity of Gonorrhœa and Syphilis in Different Locations.

BIRMINGHAM, England, March, 1891.—For the past eight years I have noticed in different localities and countries that syphilis and gonorrhœa did not show the same kind or a uniform severity. At first I put this down to individual idiosyncrasy or some peculiar state of health at the time of the reception of the specific infection by the unfortunate patient. But now I know from personal observation that gonorrhœa and syphilis not only varies in intensity in individuals of the same locality but it greatly varies in its intensity in different localities.

I write these remarks for two reasons. First, because I look on gonorrhœa as the most wide-spread and disastrous disease of modern civilization and when once acquired it is almost never cured. It is of course wholly preventable and solely the results of human error. Second, the varying intensity of *gonorrhœa* (and syphilis) and consequent pathological results will put a quietus on foolish criticism of a physician in one locality censuring the performance of a physician in another locality. In short, gonorrhœa and its results on the patient differ in different localities. Hence different results or pathology demand different treatment. My insisting on the varying intensity of venereal disease will not sound so strange when we consider that all other diseases vary in their intensity and much rests on locality. The best of physicians will tell you that typhoid fever is quite a different matter in Chicago than it is in California. Tuberculosis is so fatal in Vienna that the common people call it the Vienna disease; while tuberculosis on the western plains is so mild that a person may be afflicted a whole life time with it and yet die of a totally different disease. Cholera in India and cholera in the United States in the same season show totally different results of mortality.

Who did not notice the different mortality of La Grippe in the same winter in different countries. The varying intensity of gout in the United States and England is a good sample on the same race but different locality. Cancer varies in different countries, I used to think that Vienna and Berlin furnished the worst cancers, but cancer is the most violent, fatal and prevalent in Birmingham of any town I ever lived in. And so scarlet fever, measles and smallpox vary in degree and locality. Seaport towns come first with the fruit of the most virulent and deadly gonorrhœa and syphilis. Many of the cases of gonorrhœa in these towns is absolutely malignant, I say it is malignant because it will not be cured and what will not be cured is malignant. New York and Liverpool have an enviable capacity to stand at the head and front in the matter. Clap as destructive and just as malignant as cancer can be seen at any time in either of those proud, beautiful cities.

The next two cities which cap the gonorrhœal climax of a cultured civilization are Vienna and Birmingham. I can assure the innocent that a Vienna clap is no "frivolous anecdote," but a sad episode from which ever widening ills radiate from family as well

as victim. A Birmingham clap is truly deplorable to the victim, and terribly disastrous in nearly all future years of married life. In the large number of "out patients" of Mr. Lawson Tait, I have witnessed the most excruciating agony from recent clap in strong, robust women; and the most disastrous pathological results in the uterus, tubes and ovaries from clap of many years standing. In the "out patient" clinic of Mr. Marsh, of Birmingham, I also had good opportunity to see the conditions of venereal patients. The outcome is that I am thoroughly convinced of the virulence and incurable nature of Birmingham clap. On the other hand, almost all the syphilis which I have seen in Birmingham is of a very mild nature. Few cases are observed where extensive tissue destruction exists. I observed one case of some severity in Mr. Marsh's clinic, showing condyloma in various beatitudes. Whereupon Mr. Marsh remarked that it was not Birmingham syphilis; he must have acquired it in some other locality, as it was so severe. A well-known Birmingham surgeon told me that he had had two different chancres on his hand from operations at different times, and they were so diagnosed by thoroughly capable men; but he remarked the disease is not of a very significant nature here and he therefore had experienced no constitutional symptoms and did not expect any. The large number of Fallopian tubes containing pus which I have seen in both museum specimens and operations, and the sterility, suffering and destructive pathological changes found in the uterine appendages by examination of women who have been infected with gonorrhœa, makes it evident that clap is a terrible scourge in Birmingham. Mr. Christopher Martin, who spent several years in Edinburgh, informs me that syphilis is terribly severe and destructive there, while clap is more of a trivial affair, and is not accompanied by such fearful pathological calamities as it is in Birmingham. During a considerable time spent in London, I found neither gonorrhœa or syphilis as severe as would be anticipated from its cosmopolitan people, yet gonorrhœa has especially dire results there.

I spent about a year in Berlin. The form of syphilis seen there was not particularly virulent. The gonorrhœa though not to be compared in its severity to Birmingham, Liverpool and Vienna, yet was fairly destructive to women and left many a landmark in the prostate and vesiculæ seminales of elderly men to remind them of their youthful days when they acquired the "frivolous anecdote" which seems to be an ornamental curiosity of a Berlin young blood.

I spent about a year in Vienna. Now, as regards syphilis in this capital I was not badly impressed with it though it was bad enough. But after watching syphilis for more than ten years I have discarded the teachings of my youthful days. I was early taught that syphilis was a disease more to be shunned than the devil himself. It was poured into my head from all sides that syphilis was the acme of the greatest punishment that could possibly befall a human being, that great surgeons when they acquired it committed suicide, and that being in hell was quite a pleasure to what it was to live with syphilis rotting away ones tissue. I do not look on syphilis as such a terrible disease now. It is a disease which is amenable to treatment in a high degree. I feel quite sure that it has acted as a scape-goat like the liver and has borne a thousand ills which ignorant diagnosticians have heaped upon it. It appears to me now that most of the disasters that the older physicians attributed to syphilis really belonged to clap. I have seen patients in Vienna stripped naked on a table being examined in good light by learned dermatologists. Some of the patients were suffering from both syphilis and gonorrhœa at the same time. It required the professor a long time to find out that the patient was suffering from syphilis, its pathology was so insignificant, but it did not take two minutes to find out that he was suffering from an "awful clap." The Vienna clap is rich in calamities. It makes women live over powder magazines of pus tubes and the men over prostates and vesiculæ seminales charged for explosion. If any one thinks this sounds like exaggeration he had better go and live a year in Vienna and follow up venereal diseases, gynæcology and the *dead house*. The man that can live a year in Vienna and not be impressed with the virulent and destructive nature of clap must surely look through a glass darkly. Of course we are indebted to the gynæcologist for the fact that gonorrhœa is a fearful scourge to women. I have no doubt that clap entails on women more suffering and irremedial mischief than any other one disease.

Syphilis does not vary as much as gonorrhœa. But most seaport towns of large size have the worst and most destructive forms. But dropping a disease of doubtful high mortality let us speak of gonorrhœa, a disease which shortens the lives of men and women like wars, and the suffering to humanity is yet unmeasured. I have noted that clap is especially severe in Liverpool, Birmingham and Vienna. New York follows next in my observation. Why is it that clap is more virulent in these towns than others? I do not know. Of course it must be due either to the virulence of the gonorrhœal virus—the gonococcus or to the constitution of the victim—the power to resist disease.

This much I can say, that both in Birmingham and Vienna cancer is alarmingly prevalent as well as virulent and destructive clap. In such a case the gonococcus may be violent and the class of people nonresistive. It rather looks to be a want of resisting power of the people. The more a man studies gonorrhœa the wider he sees it spreading its fangs in society. I will speak a few words of a matter that has interested me for some time. I mean the effect of gonorrhœa on the seminal vesicles. I have dissected them out carefully for some time in the dead house. I carefully dissected those of the boar, dog and bull, and generally found that in those three animals the vesicles had a kind of uniform shape. The lobules looked natural and I never found them bound down by adhesions. In fact no inflammation was ever found in the vesiculæ seminales of animals below man. None of these animals ever have clap so far as I know. But in dissecting man's seminal vessels out in the dead house very often a quite different condition is found. The semen sacs are not regular. They bulge out irregularly. They have loculi. Their walls are thinner at one place than at others. The whole vessels are bound down by considerable adhesions. It requires a long time to free the sacs from the adhesive mass. Now where those old inflammations exist with distinctive prominence, and bind the seminal vessels into a solid mass, clap can be traced with pretty fair certainty. These men have

had clap for many a year. I observed carefully the work and teachings of Profs. Ultzman and Dittle in Vienna and I looked with interest at the *post mortem* specimens. I never heard those men speak of any particular disease of the semen sacs, nor any old inflammations as the result of clap.

They continually spoke of *prostatitis*. When the patients died and the genito-urinary tract was slit open, the appearance of the walls of the prostate and its size did not always satisfy me that all the pain which those patients complained of during life could be accounted for by that kind of a prostate. Some were very respectable looking prostates. To be sure they had an immoral history, but that should not always condemn them to prostatitis, and I was sure that the back of some of those "condemned prostates" looked suspiciously large. I felt convinced that some of the prostatitis was nothing more than inflammation of the seminal vessels. But of course when one of those professors stuck his finger into a rectum and said "prostatitis," we were not compelled to believe it, but we had to just the same. Now I do not pretend to any particular knowledge out of my own field of gynæcology. In female diseases I know something of how gonorrhœa attacks the fallopian tubes. The coccus of clap has no respect for the tubes of tender girls or elder matrons, but these germs will ruin the tubes at the very first chance. Now the vesiculæ seminales and vasa defferentia, are the exact analogues of the tubes. And why should the gonococcus of clap be so selective and respectful as to jump from the prostate all the way down to the testicle without cultivating the intermediate arable lands. The choice soil of clap germs is mucous membrane and hence the vesiculæ seminales and vasa defferentia cannot escape the harrow's tooth. I do not know of any publications on this subject. While in Birmingham, I met two men who have also done some work in the same line. Mr. Jordon Lloyd has done good work, as well as Mr. Marsh. Mr. Marsh gave me a little history of one of the patients he had lately under his care. A man aged 20, contracted gonorrhœa twelve months ago, which lasted nine months. He then got another clap which he considered was cured in a month, eleven months after he first had clap he had pain in perineum and at root of penis. The man said there was no urethral discharge. The pain increased, and in a few days more was compelled to micturate frequently, worse at night; and there was a good deal of abdominal straining afterward. A bougie was passed but nothing discovered. He was compelled now to go into the hospital, as he had to micturate three to four times hourly. There was no blood or mucus in the urine and only a very slight amount of pus, perhaps from the urethra, from which a slight purulent discharge comes. Pain and straining on micturation gives great agony and prostration. His temperature was 100.9° F. Bowels constipated and when they acted caused increased pain. There was no supra-pubic pain. No tenderness in the perineum. An examination per rectum showed that the *prostate was not enlarged* nor painful when pressed on, but on either side of the rectum a little higher up was a globular swelling, exquisitively tender and painful when touched, which was the inflamed seminal vesicles and surrounding connective tissue. The man was kept in bed until he was over the acute attack, and then discharged. Mr. Marsh examined him afterward and found the seminals still enlarged and thickened. Mr. Marsh says this was a typical case of spermato-cystitis or inflammation of the seminal vesicles. I think more work in this direction will be rewarded by large discoveries.

Respectfully,

FRED B. ROBINSON, M. D.

Book Reviews.

"Annual of the Universal Medical Sciences." A Yearly Report of the Progress of the General Sanitary Sciences throughout the World. Edited by Charles E. Sajous, M. D., and Seventy Associate Editors, assisted by over Two Hundred Corresponding Editors, Collaborators and Correspondents. Illustrated with chromo-lithographs, engravings and maps. Five volumes. Philadelphia: F. A. Davis. 1890.

This valuable reference work is very complete and is so compiled as to be invaluable to practitioners, students, editors, embracing as it does a synoptical report of all advances recorded in over 850 medical journals, and 250 books. The general index to subjects is so thorough, that the owner may find any given subject at once, if any advance has been found, and if no mention is made, it is sufficient evidence that nothing of special importance has been discovered anywhere in medical literature or elsewhere regarding it. The work has had some very great improvements added since the issue of year before in the creation of new departments and the modifications of others.

Vol. 1 embraces the following subjects: Diseases of the Lungs and Pleura; Diseases of the Heart, Pericardium and Arteries; Diseases of the Mouth, Stomach, Pancreas and Liver; Diseases of the Intestines and Peritoneum; Gastro-Intestinal Diseases in Children; Animal Parasites and Their Effects; Diseases of the Kidneys, Bladder and Supra Renal Capsules; Fevers; Scarlet Fever and Measles; Diphtheria, Pertussis and Parotitis; Rheumatism and Gout; Diabetes and Syphilis. This last appears as a special section, replete with information and ably edited by Prof. J. Wm. White of Philadelphia, being a newly created department in this last work.

Vol. 2 contains Diseases of the Brain; Diseases of the Spinal Cord; Peripheral Nervous Diseases and General Neuroses; Mental Diseases; Diseases of the Blood and Spleen; Diseases of the Uterus, Peritoneum and Pelvic Connective Tissue; Disorders of Menstruation; Diseases of the Ovaries and Tubes; Diseases of the Vagina and External Genitals; Diseases of Pregnancy; Obstetrics; Puerperal Diseases; Diseases of the Newborn; Dietetics of Infancy and Childhood; and Growth and Age. This is one of the most important volumes in the collection, as it numbers contributions by such eminent authorities as Landon Carter Gray, M. D., New York, Henry Hun, M. D., Albany, Paul F. Munde, M. D., New York, Brooks H. Wells, M. D., New York, and others too numerous to mention.

Vol. 3 has undergone modification in sections of Oral Surgery, Orthopedic Surgery, and in addition has had added the new departments of Surgical Mycoses, by Prof. Ernest Laplace, of Philadelphia, and Thoracic Surgery by Prof. J. McFadden Gaston, of Atlanta. The entire index to this volume is as follows: Surgery of the Brain and Nerves; Thoracic Surgery; Surgery of the Abdomen; Diseases of the Rectum and Anus; Surgical Diseases of the Genito-Urinary Apparatus in the Male; Orthopedic Surgery;

Amputations, Excisions and Plastic Surgery, Diseases of Bones and Joints; Fractures and Dislocations; Diseases and Injuries of Arteries and Veins; Oral and Facial Surgery; Surgical Myoses; Tumors; Gunshot, Penetrating and Poisoned Wounds; Traumatic Neuroses; Surgical Diseases; Anæsthetics and Surgical Dressings and Antiseptics. The mere mention of the names of such authorities as F. A. and John H. Packard, M. D., Philadelphia, Chas. B. Kelsey, M. D., New York, E. L. Keyes, A. M., M. D., New York, Lewis A. Sayre, M. D., New York, P. S. Connor, M. D., L. L. D., Cincinnati, and Morris Longstreth, M. D., Philadelphia, is alone sufficient to commend this part to every student, and practitioner.

Vol. 4. In this number we find Diseases of the Skin and Syphilis; Ophthalmology; Otology; Diseases of the Nose and Accessory Cavities; Diseases of the Pharynx, Tonsils and Soft Palate; Diseases of the Larynx, Trachea and Oesophagus; Intubation of the Larynx; Diseases of the Thyroid Gland; Inebriety, Morphinism and Kindred Diseases; Legal Medicine; Urinalysis; Bacteriology and Epidemiology. The entire section of Bacteriology has been entirely revised, but still contains all the improvements which were added the previous year. The engravings of this work, especially those illustrating the various diseases of the eye are of a very high order of merit. The author of the entire work, Dr. Sajous contributes Section D., or Diseases of the Nose, etc., while John B. Hamilton, M. D. of Washington and the Supervising Surgeon General of the U. S. Marine Hospital Service has added to the chapter before published on Epidemiology.

The Table of Contents for Volume 5 embrace General Therapeutics; Experimental Therapeutics; Electro-Therapeutics; Climatology and Balneology; Medical Demography; Hygiene; Embryology; Histology and Microscopical Technology; Physiology; Anatomy, and in addition gives a complete index of the Reference list of Journals.

We commend the enterprise of the editor and his valuable assistants for the perfection of this great literary scheme, and we hope that the Annual will have such encouragement that it may be issued for many years to come, as no library can be said to be complete without these books.

DISEASES OF THE RECTUM AND ANUS THEIR PATHOLOGY, DIAGNOSIS AND TREATMENT. By Charles B. Kelsey, A. B., M D. Third Edition. Re-written and enlarged. With two chromo-lithographs and one hundred and sixty-eight illustrations. New York. Wm. Wood & Co., 1890.

This work is perhaps the best we have to-day on the pathology and treatment of rectal disorders, and is worthy the careful attention of specialists and general practitioners, ably presenting the author's large clinical experience, written in language clear and concise. The chapters on the treatment of structures, both benign and malignant, and on the formation and closure of artificial anus have been entirely rewritten and much new matter added since the issue of the last edition. There has been neither time nor expense spared in the way of illustrating this work, many of the cuts being made from photographs of cases taken by Dr. Kelsey himself. The numerous rectal and intestinal operations are described fully and give the surgeon a confidence in following same, which otherwise could only be gained by actual classical study.

OXYGEN AND OTHER GASES IN MEDICINE AND SURGERY. By N. Demarquay, of Paris, surgeon to Municipal Hospital, etc. Translated, with notes, additions and omissions, by Samuel S. Wallian, A. M., M. D. of New York. 300 octavo pages, cloth, illustrated, $2.00; half Russia, $3.00. Philadelphia. F. A. Davis, publisher, 1231 Filbert street.

This work after a historical review of the subject, gives minute directions for the preparation and therapeutic use of oxygen, nitrogen, nitrogen monoxide and hydrogen, with the opinions of many of the experimenters. A resume is also given of the gases of the blood in their physiological condition, but the bulk of the work is occupied with the study of oxygen. Weigart's hot air treatment of phthisis is discussed quite fully and the book is entertaining and valuable. It has been the translator's aim to select only such of the author's work as shall prove of practical value to American readers, with the additions of such notes, comments and suggestions as the writer's personal experience and the recent progress of pneumatological science seem to demand. It may be read with practical benefit by every physician.

Items of Interest.

The late Sir William Gull, the famous court physician, it is said left a fortune of $1,750,000. Thirty years ago he was an unknown hospital physician, and penniless.

Cold drinks, as a rule, increase the feverish condition of the mouth and stomach, and so create thirst. Hot drinks relieve thirst and "cool off" the body when it is in an abnormally heated condition better than ice-cold drinks.—*Medical Brief.*

The wife of a miner at Carthage, Mo., gave birth to a remarkably small female child. It weighed at birth eight ounces, is eight inches long, is no larger than an ordinary 10-cent doll, and its formation is perfect. The doctors say its chances of living are as good as those of any baby.

According to the *Lyon Medical*, in France at present there are 2,000,000 households in which there has been no child; 2,500,000 in which there was one; 2,300,000, two children; 1,500,000, three; about 1,000,000, four; 550,000, five; 330,000, six; and 200,000, seven or more.—*Lancet.*

Prof. Billroth stipulated to perform an operation on a Russian Jew, in a small town, for 5,000 marks. On making the journey he was informed that the Jew was dead, but to render him some equivalent for his loss, an offer was made for him to treat five hospital patients at 1,000 marks each. He accepted the offer, and before starting homeward learned that one of the patients whom he had just treated was the supposed dead man, who had received the professor's services for one-fifth the original fee.—*Times and Register.*

The London physician, however, is but half what he seems; his wife has made for him the better half of his position. She cheers him when he is careworn, defends him if blackmailed, gives lessons in music when he is poor, illustrates his book and revises the text, manages his household and trains his children, brings around him the choicest of his friends, assists him in his correspondence, conducts the family prayers in his absence, returns friendly calls, and finally assumes the title of "lady" with dignity and grace.—*Foreign Correspondent Cincinnati Lancet-Clinic.*

Western Medical Reporter.
A Monthly Epitome of Medical Progress.

VOL. XIII. MAY, 1891. No. 5.

ORIGINAL ARTICLES.

Consanguinity in Disease—With Particular Reference to Ocular Affections.

BY JAMES A. LYDSTON, M. D., PH. G., Denver, Colo.

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The subject of consanguinity is one that to my mind has not received the profound consideration at the hands of the medical fraternity that one of such vital importance to present and future generations, merits. It is true that many have given the matter some thought, but it has been a question of here to-day and away to-morrow, and either through neglect or fear of courting the criticism of a few in the medical world, it has been apparently consigned to the oblivion of the past; but with your kind permission I shall endeavor to resuscitate the dying subject by presenting for your consideration the topic of consanguineous marriages, and their bearing upon disease in a manner which an experience and careful observation of some years, best enables me to do. It is not without full recognition of the fact that I trespass upon fields as yet unadorned by full verdure—in fact it is with this very object in view, having been rendered bold by the meagerness of our knowledge upon this all-important topic, that I invite attention to the following scientific facts, concluding with data which my own experience furnishes. To begin with: What diseases are said to be directly or remotely dependent upon consanguineous marriages? To my mind there are few diseases at present known to medicine that may be exempted from the category, but for convenience sake we will confine ourselves to a few of the following well-known factions, viz: Idiocy, epilepsy, insanity, hydrocephalus, albinoism and diseases of the eye—the last of which was the first to call my attention to the subject of my paper, and to stimulate me to a close scrutiny of the many cases falling under my care, and that of my brother physicians. Huth, who has written a most exhaustive treatise on the marriage of near kin, prefaces his statements by the remark that he has "divested himself of all prejudice in the consideration of the subject," and takes the stand that disease is not found to any greater extent in the offspring of related couples than it is among those who are not so related, and one of the strongest arguments against the possibility of disease as a sequel in the event of such marriages, is the fact that in-and-in breeding among animals is practiced to such a great extent without evil consequences, and in referring to this subject says: "Although by in-and-in breeding man may be able to do a great deal in the way of alteration, he must still follow nature; he cannot go contrary to physiological laws. He can increase the qualities which he wishes to get only at the expense of qualities which he is content to go without, and can no more obtain an animal all fat than he can teach his breed to live without food." Continuing he says: "We must remember that ill-directed breeding is as bad when there are frequent crosses as when there are none; that it is the selection that is the great improver when properly directed, and that breeding in-and-in is only advantageous because it fixes the breed and obviates the necessity of crossing from an unimproved breed." So that he tacitly admits that it is not a wise procedure, and we are aware that monstrosities are sufficiently frequent among the lower animals to excite suspicion as to the wisdom of the practice from a strictly biological standpoint.

Mr. Darwin says, touching on this point: "Nearly one-third of our race-horses have proved barren, or have slipped their foals"—a fact which he attributes to their high nurture or close interbreeding. It is said that Nanthusius imported a gravid sow from England and bred closely in-and-in from the progeny for three generations, and with bad results; yet he esteemed one of the latest sows a good animal, and she bred well with a boar of different blood.

What are Mr. Darwin's conclusions in regard to this matter? He concludes that "on the whole in-and-in breeding does not affect, necessarily, the external form, while it does affect the general constitution, mental powers, and especially the reproductive powers, and states in his "Descent of Man," that "when the principles of breeding and of inheritance are better understood we shall not hear ignorant members of our legislature rejecting with scorn a plan for ascertaining by an easy method whether or not consanguineous marriages are injurious to man."

It is true that this promiscuous intermarriage of near kin was followed to extremes by the Greeks, Egyptians, Assyrians and many of the babarian tribes that figure so prominently in ancient history, and it is asserted with no marked evil results. But let us look at and study the table of the dynasty of the Ptolemies and see what is portrayed thereby. No one will deny that the Egyptians decayed in wealth, intellect and power almost from the accession of the Ptolemies. Why? Certain authorities claim that their downfall was not due to their consanguineous marriages. To what then are we to ascribe their speedy annihilation? Are we to accept the bare assertion that it was not consequent upon the promiscuous marriages of near kin as an established and indisputable fact? It would appear not, but that we should, as scientists, probe the matter to its very core, amassing an overwhelming number of striking examples of the injurious effects of marriage among related couples so that doubt may no longer exist in the mind of any thinking, reasoning human creature in regard to a subject of such vast importance to the future welfare of the human race. The "Arabian Knights" are teeming with instances of marriages between first cousins, and if we can believe any part of the same as suggested by observation, the disastrous effects which followed such unions are enough in themselves to cause people of to-day to pause and consider ere they make the all-important step.

Indians never marry within their own family, but consider that marriage with strangers improves their offspring. Mantegazza says: "In the Argentine Republic consanguineous marriages are frequent with all their unhappy consequences!" Consanguineous marriages are more frequent among the Jews than among the Christians, and as a consequence we find

insanity and idiocy to be more common among the Jews. Deaf mutism is also more frequent among the Jews. We are aware that any disease such as syphilis, or other marked habits or idiosyncrasies of parents tending to weaken them are apt to cause an arrest of mental development in the offspring, and I argue that the mere fact of the marriage of near kin, their dispositions, hereditary tendencies and mental development being necessarily closely allied, it is reasonable to infer that their children—if indeed they have any—will manifest defects in their mental organizations, physical contour and anatomical structures. The greatest difficulty with which we meet in these instances is to eliminate all other predisposing factors of disease, such as syphilis, alcoholism, etc., for we are certainly not at liberty to assume that consanguinity is the cause of the pathological manifestations except in those cases in which there is absolutely no other accountable reason to which the defect in question can be ascribed.

The question naturally arises: Are there any such instances? I hold that there are, having been convinced by numerous typical cases in my own practice in which I was able to gain a lucid history of the patient's parents, and without exception both the remote and immediate history bore out the conclusion which I suspected before my inquiries were made, that the patient afforded a typical example of disease in the offspring of consanguineous parents. Dr. Bemiss, who has investigated the subject of idiocy in its relations to consanguinity, asserts that 15 per cent of the idiots in our United States' Asylums are of consanguineous origin. Deaf mutism is also shown to be consequent upon consanguinity.

In France MM. Boudin, Devay and Chipault have substantiated the theory by careful investigation. Wagner says in his general pathology in the chapter on inheritance: "Inasmuch as male and female fluids combine for the formation of the germ, the embryo may be constructed in its various parts after the fashion of one or the other parent; insomuch as it resembles the father it is less like the mother, and vice versa, so that by a preponderance of one side the influence of the other may be counteracted. * * * The mingling of stock is a means of preventing the degeneration of succeeding generations, while it is well known that the intermarriage of relatives tends to develop family traits and diseases to an extreme degree. It is especially known that in the case of cretinism and idiocy the marriage of related persons favors their appearance, while it is prevented by marriage among persons of different races and countries." The same he says "is true in a lesser degree of deaf mutism, and other remarkable facts are the frequency of sterility in related couples, and the uncommon mortality of the children of such parents."

Dr. Morris, of New York, published the following table, which, as it illustrates in an admirable manner the influence of consanguinity in disease, I will introduce at this point:

Relationship.	Families.	No. of Children.	Perfect Children.	Imperfect Children.	Percentage.
Third Cousins..	13	71	42	29	40.8
Second Cousins.	120	626	360	266	42.5
First Cousins...	630	2,892	955	1,936	66.9
Cousins' Offspring of Cousins.....	61	187	63	123	65.7
Uncle and Aunt with Niece and Nephew..	12	52	10	43	81.0
Double Cousins.	27	154	21	133	86.3
Incestuous*	10	31	1	30	96.7

In conclusion I will cite the following cases occurring in my own practice which present to my mind irrefutable proof of the pernicious effects of consanguinity in disease:

Case 1.—Three children in one family, parents first cousins, aged respectively three, five and seven years. Ophthalmoscopic examination revealed in each case retinitis pigmentosa, the peripheral fields in each instance abolished, while central visual acuity was noticeably impaired in one case. Leber cites cases extending through six generations.

Case 2.—Case of microphthalmus right eye; parents second cousins.

Case 3.—Congenital aphakia, both lenses absent, child nine months; parents first cousins.

Case 4.—Typical albinoism in two children of same family, with congenitally displaced lenses, tremulous irides, etc.; parents first cousins.

Case 5.—Double aniridy in child three years of age; parents first cousins.

Case 6.—Case of sclerectasia posterior, with subsequent choroidal changes, passing into a sclerotico choroiditis posterior, child aged seven years; parents first cousins.†

Case 7.—Coloboma iridis, child aged four years; parents second cousins.

The above cases have been selected for the reason that they seem to present typical illustrations of the sequalæ in the event of such marriages, and while many more might be added, it is believed that they are all-sufficient.

Gluten as a Food.

By C. P. Pengra, M. D., *Professor of Materia Medica and Botany, Massachusetts College of Pharmacy.*

How little we realize the importance of the foods of our day! Count them and we find that we really have but one kind. Man lives on the vegetable kingdom. True enough, we eat, digest, and assimilate beef, pork, mutton, eggs, and a number more animal *structures.* But are they anything more than modified forms of vegetable life? The word structures has been used simply because it expresses the fundamental idea that the animal, man, dependent and living upon the vegetable, is nothing more than a rearrangement of the products of vegetable life. Yes, he modifies them, but he receives, and is glad to accept, and can also live upon the direct products of the plants.

Therefore our inventory of our stock of foods brings us to the products of the soil alone, and we find that our actual supply of food is very limited. In fact the problem of economic and scientific ages has been and is: "Where is the future food to come from?" Already it has been estimated that a natural soil will

*The above table is by Dr. Bemiss, of Kentucky, for the whole of the United States, and was quoted by Prof. A. W. Morris—(Morris' Paper, Trans. N. Y. State Medical Society).

†Jaeger in "Ueber die Einstellung des Dioptrischen Apparates" supports the above.

inevitably become exhausted in 250 years. Need we follow this line of thought further to lead us to the fact that, if the soil supplies all our wants, it probably produces our necessities? If it produces the necessities of our physiological life, does it not likewise provide for our pathological conditions? Admitting this, does it not follow that different products have different purposes, and that in special modifications of the animal system special products of the vegetable are in demand?

Accordingly, it seems reasonable to presume that, for its purpose, the purer the product of the soil the more applicable, useful, and direct must be its action. These points have been advanced not only to call attention to the inestimable value of every true food in nature, but also to the idea that as there must be a purpose and place in the animal economy for each and every food, so also must there be demands for the individual constituents of these foods.

The leading physiologists and physicians of to-day are clamoring, not for medicines or new chemical combinations, but for nature, dietetics, and proper food. Knowing as we do the importance of this subject, we welcome any addition to our bill of fare that brings evidence of its characteristics and value.

For centuries it has been know that man could live happily upon cereals alone, and it required but little thought to suspect that these very cereals, grain or flour, contained something that substituted the flesh diet of others.

In course of time chemistry developed technically what theory and reason had long supposed, that man obtained from cereals more or less of two kinds of food—a non-nitrogenous (also called starchy, or carbohydrate) and a nitrogenous (meaty, or albuminous).

Later—in fact only about forty years ago—we were told that one of the greatest constituents of our vegetable food was gluten. Analysis showed that nature's store of this substance represented from 12 to even 20 per cent of wheat, 12.6 of oats, 7 of barley, 6 of rice—in fact, that gluten, or some similar nitrogen equivalent, as legumin, vegetable fibrin, etc., is liberally distributed throughout our vegetable diet.

The physiologists promptly applied this discovery, and we were soon made aware that gluten was one of nature's best means of supplying to man the very elements and effects that he sought for and received from the albuminoids, or meats.

They tell us that it is the vegetable food that furnishes stimulation as well as heat, force, and energy to the system. Furthermore, as deductions from these principles, they prove to us that this gluten, the nitrogenous food of the vegetable world, must inevitably be one of the greatest of foods that are the fuel for all motion, as also chemical action in animal bodies. It is unnecessary to specify proofs of the necessity of nitrogenous food.

The facts that every contraction of a muscle, beat of heart, expansion of lung, secretion and function of digestive fluids, conductivity of nerves, the processes of inflammation, yes, the very vitality of every part of our living bodies, all require and use nitrogen—these are sufficient proofs of the value and need of the best and purest combination of this food element that nature can produce.

As stated above, these properties and values have been greatly accredited to gluten for many years. "The gluten of wheat," "the gluten of oats," "of corn," etc., have become familiar expressions. Likewise the uses of gluten have been specified and its successful applications as a food have long since been pointed out.

No argument that we have seen has failed to direct attention to the fact that its greatest value for its purposes—"food for infants," "diabetics," "nervous debility," and the like—has depended on its "freedom from starch," the point being that in this condition it offered one of nature's simplest and purest forms of nitrogenous food. But what have been the facts?

One of the leading chemists (Ritthausen) has written: "Gluten is composed of ....,....,....,...., *and* 12 *to* 16 *per cent of starch*"—certainly a strange chemical statement, but it nevertheless is an illustration of the explanation of the unsatisfactory results of many "glutens" of the market.

Naturally the greatest expectation has been in the treatment of diabetics, but even these unfortunates have had to labor under a disadvantage, for recent analyses have shown that there was not a "diabetic food" in the market that did not contain *above* 30 per cent of starch—in fact, so much of it that Dr. Harrington (chemist, Harvard) suggests that ordinary biscuits would be quite as good for this purpose.

Considering these claims for its value and usefulness, we have reason to be thankful that so pure and simple a gluten as *Poluboskos* has been placed upon the market.

We recognize Poluboskos as simply what it is claimed to be, "a pure gluten."

No better proof of its purity could be given than the analysis by Dr. Davenport, which shows that only four-tenths of one per cent of it is starch.

A chemist's word gives us a technical story, and also a basis from which we may work out physiological actions and facts.

The lines of use and application of gluten as a food have long been well established, and the following observations and experiences are corroborative of them. In other words, gluten—Poluboskos—is one of the few instances where practice is the greatest proof of theory.

We have all learned that the composition of our first food, the mother's milk, is largely nitrogenous matter; that the egg from which the young chick is developed contains abundance of this material, but merely a trace of carbohydrates; in fact, the laws of nature provide the beginnings of life with foods that produce muscle and strength rather than fat.

It is well known that prior to the third month of life the saliva does not contain ptyaline, the very essential agent that in later life starts the digestion of starchy foods.

Considering these two great evidences, do we need more proof to convince us that if infants needed a starchy diet it would not have been so decidedly opposed by nature? No; the too frequent blunder of "kind friends" in stuffing starchy concoctions down the helpless infant throat has been sufficiently discovered and abolished by the physicians of our day, and most of them are prepared to interdict all carbohydrate foods, or at least see to it that these constituents be so modified as to correspond to the small amount of lactine that is found in the mother's milk.

These are among the leading reasons that have in-

duced the theory that infants in need should be supplied with a nitrogenous rather than a starchy or even mixed diet. These are facts that have led physicians and mothers to long for something to supply the frequent deficiency of nature.

That nature could relieve this want has been believed, and experience is abundant to prove this to be true.

Such is theory.

But what is practice?

The writer's observation and experience with the Crystal Springs pure gluten food, "Poluboskos," has certainly conformed to the foregoing and all accepted theories on the subject of nitrogenous foods. He has seen infants, weak and apparently exhausted from lack of food, stimulated and almost revivified by its use. Where other foods have been rejected by the stomach, this (although dissolved in the same kind of milk that has previously been rejected) is easily retained.

No word of objection or criticism has come to him, and his experience thus far, and that of other physicians and friends, leads to the belief that in this product we have the nearest approach to a natural food for the waning energies of infants and their many ailments of digestion.

Again, older patients continually report its value and relief in cases of weak stomach, dyspepsia, anorexia, etc. Here again theory is sustained, for, regardless of its renovating and tonic effects, it is exceedingly easy of digestion. Observation has shown that this very ease of digestion has been the cause of its retention where other foods have been vomited. Of the many people that we have heard say, "Oh, I can't take milk; I either throw it up or it makes me bilious," I have not known an exception to the report that they are surprised that they can take so much milk with it and feel so well afterwards.

Certainly this is good proof of the well-established theory that "the gluten of vegetables is one of the most rapidly digestible of our foods," and makes its use in stomach disorders correspond in reason to the results of experience.

The use of nitrogenous diet for diabetes is so familiar that its desirability does not even require a physician's recommendation. It is well known. The people know it, while the sufferers from this disease very early become accustomed to directing their own diet.

What has this been? Almost anything in the market. Even they have almost invariably applied for "gluten, gluten!" But what have they obtained? Many of them in their ambitious determination, having failed to procure their necessary food in this country, have resorted to importation for many years. And with what result? The best and purest obtainable contained from 12 to 30 per cent of starch. Therefore it is not strange that these people and their advisers have been glad, as the writer knows, to find that their own country and kind are capable of supplying their demands with a purer gluten than they had ever before known.

The writer realizes the frankness of these strong claims, but he also knows that he is dealing with a natural food that makes no claim of secrecy, and is as free to the reader in all its claims as is the beefsteak of the market; yet, while approving its claims, he would go further and say that, besides its usefulness in infant digestion and diabetic disorders, one of its greatest futures will be found in the treatment of nervous diseases.

The theory for this use is very evident. If a food can furnish energy and stimulate force production in the system, how can it do it but by toning up and strengthening the nerves themselves? What, then, must pure gluten be, if it is not one of nature's best nerve tonics?

To prove this, the writer has used Poluboskos in migraine, insomnia (due to nervous debility), in incontinence, and especially in spermatorrhœa, with results that give evidence that it is a nerve food, and that this nitrogenous, vegetable product has a place in the human economy that is not afforded to anything else within our knowledge.

It is not necessary to enter into a comparison of the various foods of the market, because we know of no other preparation, product, or compound that offers us 91 per cent of nitrogenous food equivalent.

There seems to be every reason to believe that in Poluboskos we are possessed of one of nature's greatest secrets, and that its future place among the desirable foods of the table will be only another practical proof of its necessity in the feeding of diseased vitality.

Tetany.*

By E. H. Small, M. D., *Pittsburgh.*

On November 29th, 1890, I was called to see M. B., a fat, healthy-looking, breast-fed baby boy, aged 11 months. His hands and feet were much swollen, œdematous, and of a cyanotic tinge. His mother said that they had been "spotted," *i. e.*, ecchymotic, before I had come. The fingers were strongly flexed at the metacarpal phalangeal joints, while the phalangeal joints were as strongly extended. The thumbs were adducted and flexed. The feet were extended at the ankles as in talipesequinus, while the toes were strongly flexed. Attempts to straighten out these contractions caused great pain. The mother said that at first the child cried a good deal and that his hands and feet were tender and painful. So much were the hands and feet, particularly the dorsal surface, swollen, that I suspected nephritis. The urine, however, contained no albumen. The child had always been strong and healthy, having had no other sickness.

Two days before, Thanksgiving, the child had been given some turkey and cranberries to eat, which had caused indigestion. When I called he had had no satisfactory movement of the bowels for some time. I gave him two one-half grain doses of calomol one hour apart, and twenty drops of the elixir of bromide of potassium four times daily, and told the mother to rub his hands and feet with alcohol and water. The next day he was much better. I directed hot fomentations to be applied to the hands and feet instead of the rubbing with alcohol and water. In a week the child was about as well as usual.

Four weeks before his gums had been scored by another doctor. A few days before my visit, the two first teeth had appeared, *i. e.*, at eleven months. The anterior fontanel was larger than normal for his age, and the costo chondral articulations were rather

*Read before the Allegheny County Medical Society, March, 17, 1891.

more prominent than normal. He has an older brother and sister who are perfectly healthy.

When I first saw this case, I thought it to be one of tetany, and its course and termination have proved it to have been such. I have never before seen this disease in a child, but had seen one case in Vienna, in a pregnant woman.

Although this disease has doubtless always existed, and although it was described as far back as 1831 by a Frenchman, M. Dance, as occurring in an adult, and in 1832 by another Frenchman, M. Tonnele, as a new convulsive disease of childhood, yet it is but seldom mentioned in the more common medical text-books. The name tetany was first given it by Dr. Corvisart, in 1851. Dunglison's Dictionary, 1874, speaks of "Tetanilla" diminutive of tetanus, saying that this disease is also called tetany.

Dr. Smith, of New York, defines it "as a disease in which there is a tonic contraction of the muscles, commonly those of the extremities, but sometimes also those of the face or trunk, produced by causes external to the nervous system, and usually of temporary duration." This definition shuts out true muscular contractions arising from disease of the brain or spinal cord, in which the contractions are both but a symptom, and not the disease itself. Henoch describes it under the name of "Idiopathischen contracturen" and regards it as a kind of abortive form of convulsions. Dr. Cherdle, of London, says, "Laryngismus, tetany and general convulsions are the positive, comparative and superlative of the convulsive state in childhood."

Causes. Cases are recorded between the ages of six months and sixty-one years. Most cases occur in infancy and childhood; more in males than females. The most common cause seems to be disorders of the digestive system, as diarrhœa, habitual constipation, worms, and dentition. Charles Warrington Earle, of Chicago, gives a case of a healthy girl two and one-half years old, in whom tetany occurred on the day after she had eaten heartily of fried potatoes. Perhaps my case was caused by the turkey and cranberry sauce of Thanksgiving, two days before.

It may arise in persons who are in poor health from other diseases, as pneumonia, bronchitis, cholera, typhoid fever and dysentery. Exposure to wet and cold has seemed to cause it. Hence some think it a rheumatic affection. Erb says: "Many physicians have regarded it as an exquisite example of rheumatic disease." In adults, commencing puberty, pregnancy, as in a case I saw in Vienna, and nursing, may cause it. Rhachitis is also regarded as a cause, which may hold in my case, on account of the delayed dentition, large size of fontanel and enlarged articulations.

Symptoms. In patients old enough to describe their symptoms, tetany begins with pain in the head and an uneasy, tingling, burning sensation in the limbs. In children, the objective symptoms are those first noticed. The peculiar shape of the hands and feet, their rigidity, and pain on pressure are the commonest symptoms. Generally the fingers and toes are flexed on the palms and soles, occasionally extended. At times the joints of the hands and feet are also affected, or the elbow-joint—so that the forearm appears flexed upon the humerus, the hands upon the forearm, and the foot upward, or else toward the sole. The thighs may be adducted or flexed, the legs extended or flexed, and the feet extended as in talipes equinus. The contractions are always bilateral and symmetrical. Attempts to straighten out the contractions cause pain. Œdema, with a cyanotic tinge of the back of the hands and feet and occasionally ecchymoses, produced according to Henoch, by the pressure of the contracted muscles on the intermuscular veins is oftimes present. In severe cases the muscles of the trunk and head may be affected, but this is rare in children. Trousseau's sign—compression of the artery and nerve supplying the contracted muscles increasing the contractions—can be sometimes observed. The electrical excitability of the nerve supplying the affected muscles is increased, as is also the patellar reflex.

Diagnosis: This may be made out by the peculiar grouping of the symptoms, the characteristic position of the extremities and the absence of cerebral and general disturbances. Tetanus neonatorum and organic disease of the brain and spinal cord, are the principal diseases with which it may be confounded. Tetanus generally occurs within a few days after birth, almost never after the first month; tetany is very rare under the age of one month. In tetanus the muscles of mastication are early affected; in tetany the contractions begin in the extremities, and the muscles of mastication are never, or only in the last stages, affected. In tetanus the symptoms tend rapidly to become worse and worse, generally ending in death; in tetany as a rule, the child is soon well. Tetanus is in some way connected with injury to the umbilicus, or umbilical cord; in tetany, trauma has nothing to do with the case. In organic diseases of the brain the contractions are usually limited to one side, with other symptoms of brain involvement; in tetany the contractions are bilateral.

Prognosis: In children, tetany, when uncomplicated by grave disease causing it, almost always ends in recovery, though it may recur. The duration is from a few days to several weeks or months—indefinite.

Pathology: Since tetany in children is so rarely fatal, and then usually from the complicating or causative disease, but few autopsies have been made, and in these no lesions have been found which seem to bear a causal relation to the disease. Herz says that clinical phenomena indicate that the disease is due to anæmia of the cord.

Treatment: When the cause is known, especially when from diseases of the digestive system, its removal will soon be followed by the disappearance of the disease. Bromide of potassium in doses according to age, should be used. Chloral and calabar bean are recommended. Envelope the hands and feet in hot fomentations; or use massage with alcohol and water. A child of 15 months recovered in one week on gr. ¼ zinc sulphate and gr. $^1/_{100}$ atrophia sulphate, thrice daily. This is all that is necessary in children. In adults, canabis indica and morphia hypodermically, have been used with good results.

Boil equal parts of urine with liquor potass, to which is added a pinch of sub-nitrate of bismuth. If sugar is present the powder turns brown or black.

During the progress of the Hyderabad experiments, female monkeys were fitted with apparatus to resemble the feminine corset, and chloroform administered. Two died promptly, and the others were saved with difficulty.—*Hospital Gazette.*

The Treatment of Acute Anemia by Infusion.*

By Bayard Holmes, M. D. Chicago, Ill.

Like many other therapeutic procedures, transfusion of blood goes back to the alchemists for its origin. It was first proposed and practiced as a rejuvenating measure and the blood of children was introduced into the veins of the decrepit and infirm. To-day there is a glamour of romanticism about blood transfusion† which would render it popular but for the dreadful accidents which have frequently attended its use.

The recent advances in surgical treatment remove entirely all danger of sepsis, which long deterred operators from this procedure. Transfusion has been proposed for acute traumatic anemia, for hydremia, for pernicious anemia and chlorosis, for malignant infectious diseases and sepsis, and for exhaustion due to prolonged suppuration, phthisis, and old age. In this essay I shall confine my attention to the treatment of acute anemia.

Death from hemorrhage is due to anemia of the brain. Fatal anemia may be either quantitative or qualitative. When the rapid loss of blood in a healthy person exceeds a certain limit, the circulatory mechanism is collapsed, the auricles are imperfectly filled, the ventricles, at the beginning of the systole, almost empty, and a stasis in the capillary system results. Thus the brain is anemic and its functions arrested. If the hemorrhage is stopped a little short of the danger point, the capillaries are filled with lymph from the connective-tissue spaces. The quantity of the lymph circulation is estimated to be about equal to the circulating blood. The intercellular lymph spaces act as a storehouse for the lymph, and it easily and rapidly passes into the ubiquitous capillaries when they are depleted. Indeed, McAllister (page 75) remarks: "It would be genetically more accurate . . . to call blood intravascular lymph in which are contained red corpuscles. Lymph may be regarded as the primary nutrient fluid, and blood as lymph plus a respiratory provision in the form of non-nucleated corpuscles, for the conveyance of oxygen to the tissues."

The cerebral anemia may be due, not to the diminished quantity, but to the perverted quality of the blood. Such instances are to be observed in those diseases in which the function of the hematopoietic apparatus is interfered with.

The quantity of blood in the body has been made the subject of careful study by physiologists. It is estimated variously, but it will be sufficiently accurate for our purpose to assume that it is one-twelfth the weight of the body. Of this mass one-eighth is in the arteries, one-half in the veins, and the remaining three-eighths in the capillaries.

The experiment of Rosenberg‡ would indicate that animals can survive the rapid loss of two-fifths the total quantity of their blood, while the loss of more than two-fifths and less than one-half is usually, and more than one-half absolutely, fatal. In his experimental use of the seven per cent salt solution, he was led to think that the injections only temporarily prolonged life in hemorrhages beyond one-half the total quantity of the blood. This he believed was due to the reduction of the absolute number of corpuscles in a given bulk, resulting in a qualitative anemia.

There is evidently a point, then, beyond which the proportion of corpuscular elements of the blood may not be deminished, as well as a point beyond which its quantity may not be reduced. It is not probable that this point can be determined by counting the corpuscles in progressive anemia, for doubtless a much smaller reduction in the corpuscular elements would result fatally when rapidly induced. If we take Rosenberg's data, and assume that a loss of one-half of the blood is ultimately fatal, even if infusion and resuscitation is practiced, we should have a reduction of the corpuscular elements to one-half a fatal reduction. As there are ordinarily 5,000,000 corpuscles in a cubic millimeter of blood, a loss of one-half the blood, and a restoration by infusion of its bulk to the full amount, would reduce the number of corpuscles to 2,500,000. This number has been found clinically to be compatible with life and a fair degree of vitality. Patients recover with a presence for months of less than 2,000,000 corpuscles per cubic millimetre. But a reduction of the number of corpuscles beyond 1,500,000 is usually rapidly fatal, and death occurs before the number falls below a million to the cubic millimeter.

We should say, then, that patients do not survive the loss of more than one-half, or some such proportion, of the corpuscular elements, though it is evidently impossible to fix the proportion exactly. Mikulicz has lately (1890) examined the blood of patients who have suffered from hemorrhage, and he concludes that a loss of five per cent of the coloring matter—*i. e.*, five per cent of the corpuscular elements—is restored in about five days, and that a proportionate time is required for more extensive hemorrhages.

It may be assumed that conditions of acute anemia may occur in which the natural dilution of the blood with lymph is sufficient to resuscitate the patient; and it is probable that such an equalization of the lymph and blood pressure is adequate up to the loss to about two-fifths the total quantity of the blood mass. When more than two-fifths and less than one-half the blood is lost to the circulation, dilution of the lymph by transfusion of neutral salt solution is sufficient to restore the patient to a living equilibrium. But there is a point beyond which the dilution of the blood, either directly or through the dilution of the lymph, will not restore the patient; for, though the increase in the quantity of the intravascular circulation by washing out the lymph with the neutral salt solution meets the mechanical needs of the circulation, it so far reduces the respiratory qualities—the oxygenating properties of the blood—that a qualitative anemia, incompatible with life, persists.

Looking at the loss of blood as the cause of death in a number of obstetrical and surgical cases, as well as in accidents, and as a cause of a protracted convalescence when short of the fatal point, we may well consider the indications for treatment in acute anemia.

One-half the volume of the circulating blood is found in the collapsible veins. It is evident that they

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*Read before the Chicago Gynecological Society, November 21st, 1890.

† Ewald has recommended the restriction of the term "transfusion of blood" to the classical operation, and would apply the term "infusion" to the injection of watery solutions, while the operation of Ziemssen he would call "injection of blood" (Bluttransfusion, Wasserinfusion, Blutinjection). These terms, however, are not yet adopted by English writers.

‡ Virch. Arch., Bd. 112, S. 464.

will be the first to be emptied in extensive hemorrhage. By placing an anemic patient in the vertical position, with the head down, the blood vessels throughout the three vital parts, the brain, the heart, and the lungs, will be fully distended with the least amount of blood. The first indication, then, in severe acute anemia is to fill the blood vessels by maintaining the most favorable position of the body of the patient. The same result may be more tardily, though more conveniently, attained by temporarily shutting off from the circulation the larger extremities by means of elastic bandages applied firmly from the distal to the proximal extremity of the limb. These two procedures are sometimes termed auto-transfusion.

When the anemia is so excessive that auto-transfusion is inadequate to restore the mechanical necessities of the circulation, the anema is fatal. But it may temporarily restore the function of the respiration and yet fail to meet the subsequent needs of life. Then there is but one source of relief. This is to be found in the lymph. The rapidity with which the blood pressure is raised is remarkable. It is usually complete at the end of an hour and a half or two hours. Therefore, when the symptoms of a low blood pressure remain after an hour and a half or two hours from the beginning of hemorrhage, and the mechanical necessities of the circulation are unmet, the washing-out of the remaining lymph by means of a subcutaneous infusion of a neutral salt solution meets the indications of the case.

The amount of salt solution, as well as its concentration, is a matter of some moment. The proportions need not be so exact nor the temperature so well regulated as in infusion directly into the vein, for the tissues act as a sort of ballast and reduce the infusion to a proper concentration and temperature. They retain also any excess in the quantity of the infusion until the blood pressure is reduced again by excretion. Large amounts have been used without danger, but in excessive anemia the quality of the blood may be carried to a fatal point of dilution in raising the intravascular pressure beyond the mechanical necessity of the circulation. Practically, this is not likely to happen, for an excess would mean the infusion of more than a gallon.

After the mechanical needs of the circulation are restored, the quality of the blood may be so impaired that a vital equilibrium is not to be attained, and the patient sinks into a state of rapid disolution. The oxygen-carrying and the nutritive needs of the circulation are not met when the mechanical requirements of the heart are satisfied. The vital power of the heart muscle (and doubtless of every part of the body) is sufficient, as Martin, of Baltimore, has shown, to keep up its function for several hours without any nutrition at all, but it eventually becomes exhausted.

For such severe anemia the infusion of a salt solution and the dilution of the lymph is not enough. The indications have been pointed out again and again; but the dangers of the direct transfusion of blood are so many and so formidable that they have deterred the experience from its practice. The desired result has been sought, then, in the transfusion or injection of defibrinated blood.

Münchmeyer* has well stated the advantages of infusion of 0.6 per cent salt solution. They are too familiar to need rehearsing. Every one will appreciate the accessibility of the solution as compared with that of other materials, such as blood and defibrinated blood. Its composition does not require a high degree of accuracy. Its administration does not require an assistant or an anesthetic. Any simple apparatus may be used—*e. g.*, an aspirator syringe or a tube and funnel, and, best of all, the rotary surgical pump.

My own experience in the treatment of acute anemia has been confined to auto-infusion, and on two occasions to the subcutaneous infusion of neutral salt solution.

Case 1.—Through the kindness of Dr. Franklin H. Martin, I was called to attend him in an operation at the Woman's Hospital, and I was requested to be ready to treat dangerous anemia by transfusion. The operation, which was an abdominal hysterectomy, was carefully performed, with the loss of only a moderate amount of blood. It lasted nearly three hours, and at its close the pulse was only barely perceptible at the wrist. Six ounces of a sterilized 0.6 per cent salt solution were therefore infused under the skin of the back and breast with the following apparatus: First is a bottle holding one gallon, or four litres nearly. In it are to be dissolved just twenty-four grammes, or six drachms, of salt. It is then stopped with cotton and boiled for three hours. In an emergency such a bottle may be filled with boiling water, and the salt added and used immediately. Next is the rotary surgical pump adapted for infusion. The small gum tube is mounted at one end with an aspirator needle; the other end dips into a glass. It may be retained by slipping on a little glsss tube. When the glass is filled from the bottle, a few turns fill the tube completely with the solution and empty it of air. The temperature is regulated by allowing a coil of the tube to lie in a basin of water near the patient. This simple apparatus has the advantage of supplying a continuous stream, with no danger of getting out of order and no fear of air. It is easily and rapidly arranged.

The patient died a few hours later, apparently of shock. I do not think enough salt solution was used in this case. The anemia was both quantitative and qualitative, for the patient had suffered repeated hemorrhege from a suppurating fibroid of the uterus.

Case 2 was a rupture of an extra-uterine pregnancy in the seventh month. The woman was a German, 40 years old. This was the first pregnancy. She was first seen by Dr. F. Mattison on the morning of September 23d. At that time she was in collapse and had been vomiting. Distress came on suddenly in the morning. No pulse at the wrist. Drs. Waxham and Jaggard were called in. A diagnosis of detachment of the normally implanted placenta and intra-uterine hemorrhage was made. It was decided that transfusion was indicated. With the apparatus which I have just presented, the infusion of nearly a gallon of a salt solution, prepared on the spot, was accomplished in about half an hour, greatly to the relief of the patient. The pulse appeared at the wrist, the collapse gave way in reaction, and the patient was out of bed and walking about the room the next morning. She slowly improved for five days, when symptoms of sepsis with emphysema of the uterus came on, and she died under an operation intended to evacuate the contents of the uterus. The post mortem

* Arch. f. Gyn., 1889, Bd. 34, p. 881.

showed the true condition of the case (to be reported by Dr. Jaggard).

In this case, I believe life was prolonged by the use of the infusion.

W. Hunter* has shown that the intraperitoneal injection of blood is followed by transudation *from* the vascular apparatus into the injected foreign blood, and by *diminution* of the quantity of circulating blood with consequent concentration. The number of corpuscles to the cubic millimetre increases from seven to thirty-five per cent in a few hours, and as quickly returns to nearly normal.

It is possible that in this case some of the intensity of the anemia was due to the secondary transudation into the hematoma and the consequent concentration of the blood left in the veins. As Hunter found that the intraperitoneal blood was found in the increased number of corpuscles in the circulation for weeks, the remarkably good effect of this infusion might have been due to the subsequent absorption of the blood in the hematoma.

This incident may point to the combination of 0.6 per cent salt infusion with the subsequent injection of blood. The pressing mechanical indications are met by the infusion, and the absorption of the injected blood restores the vital qualitative equilibrium of the circulation. From reading the literature on this subject, I would propose the following aphorisms:

1. In dangerous acute anemia auto-transfusion should first be practiced.

2. When the lymph spaces are drained, as is indicated by the sunken and drawn appearance of the face, or by the time auto-infusion has been tried and the symptoms of anemia persist, infusion of a large amount of 0.6 per cent salt solution should be practiced. The necessary apparatus is so simple and the danger so remote that this measure should not be neglected.

3. The immediate intravascular injection of salt solution or blood for acute anemia cannot be countenanced in the present state of our experience and knowledge.

4. The value of secondary subcutaneous or intraperitoneal injection of blood in cases of so extensive hemorrhage that a qualitative anemia is present after the mechanical needs of the circulation are satisfied, is still conjecture, but certainly such injection of blood should not be practiced until reaction is well restored.

5. The immediate subcutaneous injection of blood diluted with a large amount of salt solution is not contra-indicated, but its value is still problematical.

6. The rotary surgical pump is the most perfect and manageable apparatus yet proposed for subcutaneous infusions and injections of large amounts, and for direct intravascular transfusion.

In Chicago the moment a new baby appears in the "upper circles" engraved cards are sent out announcing the important arrival. To prevent delay in this announcement two sets of cards are prepared beforehand, one bearing a feminine name, the other a masculine.

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* "Intraperitoneal Blood Transfusion," Journal of Anatomy, vol. xxi., 1887, and British Medical Journal, 1890.

Society Proceedings.

Allegheny County Medical Society.

SCIENTIFIC MEETING, MARCH 17, 1891.—T. D. DAVIS, M. D., PRESIDENT IN THE CHAIR.

Paper by W. C. BANE, M. D.:—CHLORATE OF POTASSIUM IN PHLYCTENULAR ULCERATION OF THE CORNEA.

It is almost a century since chlorate of potassium was brought to the notice of the medical profession as a remedial agent. In 1795 Dr. Garnet,* of England, used it in the treatment of disease. At one time it was lauded as almost a specific in many of the maladies to which mortal man is heir. However, years of clinical experience determined its real value, and it was assigned a place among the topical remedies. Though valuable when administered internally in some conditions of the system it has its deleterious effects,† having already caused 47 deaths.‡ Its therapeutic properties may be stated generally as those suggested by its chemical constitution and affinities, as a salt exceptionally rich in oxygen, it has without decomposition, the valuable property, *per se* by its mere presence apparently, of oxygenating or aerating the blood, and by so restoring or exalting this inherent quality of the circulating fluid, influencing to a corresponding degree nutrition and functional activity of the various tissues and organs of the body.§

In ulcerative diseases chlorate of potassium has been thoroughly tested during the past 40 years both internally and locally. Under Therapeutics, in the *North Am. Medico. Chirug. Review* for March 1858, p. 387, Dr. Dethan regards chlorate of potash "as an especial and incontestible remedy in ulcero-membranous stomatitis * * its topical application is sufficient, and in a short time the mucous membrane recovers its normal qualities and functions."

Dr. Gallaher, of Pittsburg, (*Am. Journal Med. Science*, July 1857) lauded chlorate of potash in mercurial stomatitis, stating that, "should there be ulceration of any portion of the mucous membrane of the mouth, I direct a weak solution of the salt to be applied to the denuded part several times a day; generally nothing else is required, the cure being accomplished in a few days." As a local application in ulcers of the lower bowel, chlorate of potassium in solution gives excellent results, ulcers healing rapidly.

I presume chlorate of potassium has frequently been used as a local application in diseases of the eyes, but I have only found one record, that of Dr. Landesberg, of Philadelphia, using it as a topical application in epithelioma of the eyelids.‖

Ulcers of the cornea, especially the phlyctenular variety, are frequently met with, usually developing as a little papule or pustule on or near the margin of the cornea. They may develop independently or as a complication of some existing ophthalmia or catarrhal affection of the nares. A large percentage of the

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*Duncan's Annals of Med., p. 1797.
†Bartholow's Mat. Med. 4th Ed., p. 183.
‡Dr. Coghill, Trans. Ninth Internat. Med. Cong., p. 26.
§Dr. Coghill, Trans. Ninth Internat. Med. Cong., p. 31.
‖Medical Record, 1882, p. 674.

cases are strumous or scrofulous, consequently suffer from nasal catarrh.

The symptoms may vary as to their intensity, but we usually find photophobia, congestion and pain. The variation in the symptoms being influenced by the number of phlyctenules and the constitution of the patient. Constitutional treatment and regulation of the diet, etc., is invariably needed.

The first use I made of chlorate of potassium as a local remedy in ulcers of the cornea was in a case of serpiginous ulcer in Jan. 1882. Case—Mrs. S. C. H. *aet.* 50, constitution feeble. Having exposed herself in doing some out-door work while the weather was rough, that developed an ulcer in the upper, outer quadrant of the right cornea. When I first examined the eye the ulcer was about 2x3 mm. in size. There was photophobia, congestion of the conjunctiva and subjacent tissues; eye-ball, right side of the face and head painful, constitutional remedies prescribed. Locally atropia and weak solution of biborate of soda. One week later the ulcer had doubled in size and depth. Atropia acted as an irritant, morphia disagreed, they were both discontinued. As chlorate of potassium had served me well in ulcers of other portions of the body, I determined to test it on the corneal ulcer, and so directed a 5-grain solution to be instilled in the eye, as warm as could be borne three or four times daily. From the time the chlorate was used the ulcer began to heal. Owing to loss of tissue there remained an opacity. Instead of the morphia the patient was given hydrate of chloral with bromide of potassium, though chloral when administered internally acts as an irritant to the eyes in some cases, in this case it did not.

During the past five years of special practice, nearly four years of which I have had charge of the eye and ear department of the dispensary of the Western Pennsylvania Medical College, some 56 cases of ulcer of the cornea have come under my care. About two-thirds of these cases were of the phlyctenular variety. The chlorate has rendered good service in different forms of ulcers of the cornea, but rather better in the phlyctenular than in the other varieties. Not all of these cases were treated with the chlorate, as in some the washed mild chlorate was applied, in others the ointment of the yellow oxide of mercury, and in a few weak solutions of the bichloride of mercury.

In the limited experience I have had in the treatment of corneal ulcers and the use of the above remedial agents, my convictions are that the chlorate in about 5-grain solution used quite warm three or four times daily is the most soothing and heals the ulcers more rapidly than any of the other agents tested. True, the warm water itself is of great advantage, but the chlorate is a valuable addition on account of its antiseptic action. It does not prevent bacterial evolution, but it does retard chemical decomposition of organic fluids.

DR. LIPPINCOTT: I never use chlorate of potassium in such cases. We have so many old remedies which will answer the purpose. I have found in my experience that the direct application of very hot water to the cornea is a good thing in these ulcers. The one class to which the doctor refers, generally extremely obstinate, I have treated by the direct application of water at a boiling temperature or steaming. I put a drop of water directly on the exposed cornea so that it steams as it comes out. One drop of the water touches the ulcer. and the effect is marvelous in some cases. The first case I tried it in was a little boy, aged about six years, who had been under treatment for a good while. Treatment had been followed for about three weeks without any material change for the better, and it occurred to me one day to apply the hot water in that way. Before that time could get no dilatation, none whatever, but after the first effort with hot water, the pupil dilated very widely indeed. A good recovery was made. Heat is applied constantly of course, but this was a new application of heat. This hot water water treatment, it seems to me, is milder than applying a red hot iron to the ulcer. It seems to destroy less tissue than the hot iron, and it certainly answers the purpose in so far as my experience has gone.

DR. BANE: I simply wanted to bring this matter out. Hot water is certainly beneficial, as Dr. Lippincott has stated, but it seemed to me that the chlorate shows an advantage, at least it has done so in my experience.

Paper by Dr. Small. See page 108.

DR. LANGE: I once saw tetany follow diphtheria at the time paralysis usually follows. The description Dr. Small has given of his case fits mine exactly. Tonic contractions of the muscle, lasting in my case ten days. The dorso-cervical muscles were not involved in my case, neither were the muscles of the lower jaw, and the clinical picture as a whole is different from tetanus. At that time I had not been enlightened by Dr. Small's researches, and ascribed this to some obscure nervous affection. I am glad to have heard Dr. Small's pathology, and merely mention my case as his etiology did not include diphtheria. Tetany in the infant is not a very rare disease; it is however in the adult. I do not remember having seen it in an adult. The symptoms given by the doctor correspond to the symptoms in my case. These cases generally recover without treatment.

Dr. Green: At the present time I have in charge a case or two of tetany, and one has been going on a full week. In the first instance, when I was called to see it, they reported that the child had convulsions. The child is 19 months old. There were no convulsions and no indications of convulsions having taken place. None of the usual symptoms that follow convulsions. I did not discover any peculiarity at that time in regard to the muscular contractions. I saw the case again in two days; at that time the discoloration of the hands and feet was well marked. Very tender on pressure, a case that might well be mistaken for rheumatism. The general condition of this child when I saw her, was slight congestion of the lungs with slight bronchitis, and I discovered afterward that there was some derangement of the stomach. I used an injection of warm water, and when the matter had passed from the bowels, there were a considerable number of pieces of potato that had been fried before taken into the stomach. I think my case corresponds almost exactly with the case that Dr. Small has described. On my first visit I regarded it as tetany, although I was not able to make a diagnosis. The case was well marked latterly.

Dr. Rigg: I would like to ask a question: Whether the doctor has observed any special contraction of the muscles with reference to the epidemic that has been prevailing for the last year or two? I refer to the epidemic called "grippe." There has been in my hands

quite a good deal of contraction of the muscles, especially of the limbs, so much so that persons have been unable to relax themselves, and would generally require a quarter of a grain of morphine, and I have had to repeat that two or three times in an evening before the muscles would relax so that the patient could rest. I was very much pleased with the doctor's paper, and the question came up in my mind whether there might be some connection between tetany and the influenza of which I speak.

Dr. Ayres: This is certainly an uncommon disease. I have never seen a typical case of it. The cases of Dr. Riggs are not due to tetany, they are doubtless of a rheumatic character, caused by the cold or influenza, and possibly Dr. Green's case is similar. In one respect the doctor's does not quite agree with the typical cases, and that is, that it was of brief duration —about a week if I remember aright. Tetany is paroxysmal, coming and going. If I understand the doctor rightly, his case was just one of tonic contraction, which relaxed and disappeared, and I believe there was no recurrence.

Dr. Stevenson: I think there are a great many diseases that because they are rare and infrequent, are not much written of or talked about. Now tetany is a disease that has been very clearly before the profession for thirty years, yet the fact that perhaps we do not see this disease and do not hear it talked about, makes it seem like something new. Some of the speakers have got the idea that it occurs almost exclusively in childhood. I think I will have to differ from that, for Prof. Trousseau when he first discussed the disease, described it as a rheumatic contraction occurring in nursing women. In his hospital he had seen a number of cases occurring in the nursing wards, and he published a description of them. The paper, as I understand it, did not exactly describe the contraction as I understand the disease. This contraction is a spasmodic affair that comes on and may last a few minutes and may last as long as twelve hours, and relax and come again. A contraction that would last twelve hours would be considered one of unusual duration. Now, then, the paper as I understand the question, describes the disease as terminating in a week. This is possible in a mild case which may terminate within a week and not return, though the rule is to have these contractions repeated frequently during a day or several days, if they are sick long enough, in which the patient will seem well, and the condition will occur and be repeated again and again, and the whole duration of the disease is very frequently several months. I saw a case of this character twenty years ago. It occurred in a pregnant woman. She was ten years married; she had given birth to seven children, and as a result she was very feeble and delicate, worn out, exhausted by her frequently recurring pregnancies; she was all the time either carrying a baby or nursing one during these ten years. In about the sixth month of her pregnancy this condition occurred. She got spasmodic contractions of the toes, and then of the ankles, and by and by it involved two fingers on each hand, and the thumb. She would sometimes have these paroxysms come on and last for an hour, and relax for a time, and come again probably for a week; then perhaps for a week or ten days she would be wholly clear of the spasms, then they would recur again, and this condition continued until after she was delivered of her child. I saw another case of tetany in a boy, a colored boy, who lived in a rather destitute condition. The family were exceedingly poor, and lived in a stable simply weather-boarded, with no internal lining. They had few bed-clothes and were scarce of food. This boy was driving a wagon and doing chores of different kinds through the town; he was aged about 16 years. He drove a milk wagon and was out in very severe weather, and only partially clothed. I think the privation and the cold he was subjected to at home and outside, brought on this tetany. He had contractions of his hands and of his feet, and contraction of the abdominal muscles and the diaphragm, and he died. He had no lock-jaw, he had none of that sensation around the chest that would indicate tetanus, but this spasm of the diaphragm occurred at intervals. He had one or two slight attacks of it on the first day; he had two or three slight attacks of it in the night, and the next morning he had a severe attack of the diaphragm and died.

Dr. Small: As I said in my paper, I do not think this disease is mentioned in the common medical text books. The most I have read on it I have seen in the last two or three years in the *Archives of Pædiatrics*. I presume that I so easily made out a diagnosis of this case, for the reason that in three numbers of that journal, Dr. Smith, of New York, published a very exhaustive article on the subject, and he had some pictures, one of which is almost precisely like the appearance of my patient when I first saw her. His article is very exhaustive, and it may be that he got it up simply as regards tetany in children, and although this article I mention speaks of it in a child, I think I mentioned in several places in my paper as to symptoms in adults, although it was written with a view of describing tetany in children. As to duration, the gentlemen seem not to have understood me rightly. I stated it may last a week or a month or indefinitely. As to diphtheria being the cause, as far as I have observed, I have not seen that given as a cause, nor have I seen influenza given.

Topic for discussion at this meeting:

TYPHOID FEVER.

Dr. Rigg: Typhoid fever, gastric fever, typhus abdominalis, enteric fever and infantile remittent fever are a few of the terms used to designate a peculiar continued fever of long duration, usually attended with diarrhœa, and characterized by peculiar intestinal lesions, an eruption of small rose spots, and enlargement of the spleen. In common with other continued fevers, typhoid fever is due to the introduction from without of a specific poison into a system more or less predisposed to the disease.

The nature and origin of the poison, and the modes in which it is propagated, are questions of interest and importance. Two distinct views have been held with regard to the origin of the poison, one that it is specific in its nature, and derived only from some pre-existing case of the disease. The other, while usually produced in a person suffering from fever, it may also be generated anew by the decomposition of sewage and perhaps other forms of animal filth.

It is excepted on all hands that typhoid poison is reproduced in the system during the fever, and that its chief, if not exclusive outlet is the intestinal discharges.

There is no evidence that is conveyed by the breath,

perspiration or urine, but while it is in the intestinal discharges it is not as virulent when first voided as after it has been allowed to stand awhile. Warmth, stagnation and seclusion from open air intensify the poison.

There is now very little opposition to the above theory—Murchison, of the older, and Harley, of the more recent writers, excepted. The former supporting the sewage gas origin, and the latter the effect of derangement of function, he denies the infectious nature of the disease, and holds that a chill or wetting is sufficient to determine congestion and the resulting phenomena of enteric fever. With the above exception, the mind of the profession seem to be almost a unit as to the specific cause of typhoid or enteric fever.

The mode through which the poison may find an entrance to the human body is still a question in the minds of many able investigators. As it stands to-day, we might say the probabilities are in favor of the following in the order in which they are named:

First, Infected water. *Second*, Infected milk. *Third*, Infected ice. *Fourth*, Air being infected with the dried spores through dust. *Fifth*, Digital infection. *Sixth*, Infected meat. With reference to the first, or water source, there seems to be no limit to the evidence that might be collected were one disposed to spend the time and labor to collect it; we will therefore only refer to a few cases in which that seems to be the cause.

Mr. Charles V. Chapin reports on the epidemic fever in Providence, R. I., in its relation to the public water supply. It was found that the fever had prevailed at Natick, three and one-half miles above the pumping station which supplied the reservoir. It was learned that the excrement had been thrown on the river bank. The time between a heavy rain which would wash the excrement into the river and the outbreak was about fifteen to twenty days; deduct from this three days which would be required to get from river to consumers, and we have about twelve to seventeen days as the time of incubation.

This is in accord with the report given by Dr. Taylor in 1885, to the State Medical Society of the Plymouth epidemic, which was clearly traced to a case in the mountains on the bank of a stream that supplied the reservoirs.

The time which this got into the reservoir was, if I remember correctly, March 26th, and the outbreak April 9th to 15th, at which time it was in full force, also, in accord with a report by myself in 1884, to the Westmoreland County Medical Society, of an outbreak at Alice mines, in which one case was brought to a house where the closet was located just above a spring. About the third week there was a heavy rain, causing the vault to overflow, at which time I went to the superintendent and asked that the spring be closed up, when he informed me that it was the best water on the place and could not do it.

After trying to explain to him the reason, and failing, the matter was dropped, and in about seventeen days typhoid fever began to develop, we had in all twenty-four cases, all except one got their water supply from the above spring.

At this time the company ordered the spring closed, and the trouble ceased. Dr. Anderson reports a peculiar teat eruption in the milch-cow, in connection with an outbreak of enteric fever among the consumers of the milk, at Dundee. There is also a report from Leeds, showing milk to be the probable source of infection. I have been unable to find any well authenticated cases traceable to ice, but the fact that a low temperature does not destroy the germ, makes it a possible source of infection.

The air may be the source not so much by carrying the germs themselves, as by carrying the particles of dust, or other matter, that may contain the special poison.

It is impossible for a current of air to detach bacteria from moist surfaces; they must first dry. I think it possible to account for many insolated cases, that could not be accounted for in any other way.

As to digital and meat infection, they, in my judgment, are only possible and not likely means of communicating the disease.

As to diagnosis we will say but little, as the disease is too well known to you to justify taking your time, only a few points will then be noted:

The invasion is usually insidious, more or less headache, muscular weakness, general depression, with pains more or less through the body, slight chills, as a rule not severe, loss of appetite, epistaxis, yellowish white coat on the tongue, bowels confined or relaxed; if confined, usually open freely from slight purge, urine high colored and diminished in quantity, pulse and temperature above normal. The patient will have the appearance of more depression than will be accounted for by the temperature or duration of illness; the face is often a very useful guide in making an early diagnosis. One very important thing to do is to exclude any local imflammation as a cause of the pyrexia. The abdomen may be tumid with some tenderness of right iliac fossa, but the absence of this does not exclude enteric fever. The gradual and continuous rise in temperature, together with the above symptoms and absence of local imflammation, will leave us fairly sure of the character of the trouble. Then if we get a free yellowish green stool from slight purge, we may feel sure of our case. The rose spots will soon begin to make their appearance, a short cough is often present, sometimes severe with sibilant rales. If the pulse is much above one hundred per minute, you can look for a severe case—if below eighty or ninety most likely a mild one.

Relapses are common in enteric fever; this if a true relapse is not simply a return of pyrexia, but a return of all the phenomena of fever. I have seen the third relapse with all the symptoms well marked, with a period of five to ten days between the ending of one and the beginning of the other.

As to special symptoms and complications hemorrhage is perhaps the first to attract our attention. This occurs in about eight per cent of cases, usually after the fourteenth day.

Perforation also may occur, and is a very fatal complication.

Peritonitis without perforation may occur, and in typhoid fever may exist without any very great tenderness, but with a good deal of tympanites.

If great tympanites occur early in the disease, say the first week, it is an unfavorable indication. Diarrhœa is usually present though not often hard to control, and if not excessive not especially dangerous. The urine usually contains albumen in the early stage, and by some is looked on as a diagnostic sign. Ehrlich's urinary test is also regarded as of great

diagnostic value. This is the characteristic red coloration of the urine, and is made by adding 25 parts of a solution of sulphanilic acid in dilute hydrochloric acid, 1 to 20 to 1 part of a 5 per cent solution of sodium nitrite, and the whole mixed with an equal part of urine.

I have had no experience with this test and cannot speak of its usefulness. Pneumonia is very apt to develop in the later stage if the patient is exposed to any draft. It has been my rule for the past eight years to have the bed so placed that the door would open and shut without a draft passing over the bed. The windows should be just as carefully watched. It cost one man his life to teach me that lesson. Pulmonary gangrene, pleurisy, thrombosis and embolism may occur in the course of the fever or at its close. Parotitis going on to suppuration occurred once in my hands; there was no fistulous opening left after recovery.

Phlebitis has several times appeared as a sequela to enteric fever. Arteritis is also reported in which the femoral artery was occluded and amputation was necessary.

Sudden death may occur in typhoid fever from bulbar paralysis, capillary hemorrhage in brain, and from the much used and abused heart failure. There is nothing in the early state of a typhoid patient to indicate that the fever will assume the abortive form; this, however, will most likely become manifest, by about the eighth or tenth day. The scope of this paper will not admit of the consideration of either the abortive or irregular forms of typhoid fever. In enteric fever the prognosis should be guarded on account of the long time the case will most likely run, and the risk to some one of the complications; very high temperature or rapid pulse indicate a severe and possibly a dangerous type.

The treatment should be largely symptomatic. The patient should be placed in a large room, well lighted and well ventilated. Any unnecessary articles of furniture should be removed. The body should be sponged off night and morning in tepid water; if the skin is hot and dry a little bicarbonate of sodium should be added to the water; if sweating is profuse a little vinegar. The patient should be handled with care; all traumatism to the abdomen should be dispensed with. Either violent or unnecessary palpation or food that is not in a liquid state. The great tendency of typhoid patients to develop tuberculosis, should cause them to be protected from any possible exposure in that line. In the early state a few doses of the mild chloride q. s. to empty the bowels and put them in an aseptic condition, will be good treatment. This may be given with naphthaline in three or four grain doses. Naphthaline is said by some to be more of a destroyer of the typhoid bacteria than calomel, but the latter would receive my confidence in the first few days. It lessens the subsequent diarrhœa, and leaves the bowels in a better and more healthy condition. The statistics show that cases receiving the mild chloride at the onset of the disease run their course in about two days less time than those not receiving the same.

As to the antipyretic treatment, high temperature in any specific fever is an indication of danger, not the cause of it. Temperature is only a part of a specific fever. Subnormal temperature is due like elevation of temperature to disorder of the thermotaxic centers. Perhaps the best antipyretic we have is the cold pack or the spray of cold water, as practiced by Hiller and others in sun-stroke.

Antipyrin, antifebrin and phenacetin, should not be used as antipyretics in typhoid fever. It has been my experience also, that large doses of quinine given throughout the disease had the effect of prolonging the disease, and I have failed to see any good in any way from its administration.

Carbolic acid and tincture of iodine, resorcin, turpentine, the acids, etc., have all been used with more or less success. The important thing in my mind is to keep the stomach in as good condition as possible, the bowels aseptic, patient quiet and well nourished with liquid food, and you will give your patient the best chance to get well. Complications must be treated as they arise.

Dr. Kœnig: I am pleased to see the prominence that Dr. Rigg has given to infection through air. I believe that is a source of infection frequently overlooked by city physicians. The infection to which I refer is found only in cities in which there is a system of sewerage. I am perfectly clear in my mind that I have seen a number of cases of typhoid fever the infection of which could be traced to sewer pipes, in which there were no traps, that led directly from the under-ground sewers in which the intestinal discharges of typhoid fever cases are thrown throughout the year. We can readily understand that the germs will multiply there and that they will rise with the vapors, for if odors can rise from the sewer into sleeping apartments, certainly these minute germs to which I believe we all consider the disease to be due, can also rise, and I think it is the duty of all physicians to inspect the sewage of a house in which cases of fever have occurred, and to prevent any one sleeping in an apartment in which there is no trap to the waste pipe, and I believe, furthermore, that the air saturated with the germs of the disease which have a deleterious influence on the course of the disease, and the removal of the patient from such a room would be judicious. I wish also to say a word in favor of the drug that Dr. Rigg has recommended, namely, naphthaline. I have used it in a few instances, perhaps not sufficiently often to decide regarding its merits, with absolute certainty. I have used it where there was considerable tympanitis, with uniform success. It is an extraordinary germicide, and in repeated doses of two or three grains will disinfect the intestinal canal. It seems to me rational treatment to administer a remedy like naphthaline if for no other reason than to distroy the fermentative germs in the intestinal tract.

Dr. Kearns: This subject is so old and trite that it is perhaps difficult to raise profound interest in it, but perhaps there is no subject that should engage our attention more thoroughly and more carefully than typhoid fever. When I commenced to practice, over thirty years ago, it was the great disease, requiring more attention than was given to the treatment of almost any other disease, but now it has lost that interest, owing partially to the fact that other ailments have grown to occupy a large share of the professional attention. I think Dr. Rigg's paper was a fine résumé of practical points in which he dwelt principally on causation, diagnosis and prognosis. Of course it is unnecessary to go into the anatomical and clinical conditions, neither is it necessary to dwell on causation. However, I am not prepared to admit that this

is due exclusively to outside influences communicated by microbes. That it has no other source of generation I am not prepared to admit and never have been. I agree with some of the old athorities who studied this disease many years ago and saw it in its true type. I never come across a case now such as I came across twenty-five years ago. At that time whole families would be taken down, four and five one after the other. Now it is seldom that more than one in a family is afflicted with the disease at the same time. Then, these cases were invariably characterized by a peculiar tongue, and by symptoms of the locality of the disease, the ulceration of the glands. I admit that in all my experience and careful study of typhoid fever, it is a difficult matter at the present time to diagnose a case of typhoid, especially the first time I visit it.

I never report a case to the board of health until I have made two or three trips. Formerly, typhoid fever was supposed to come on slowly and gradually. The cases we have now come on abruptly, and I always defer my report until I am certain about the fever. I believe it is to a certain extent auto-genetic. I am borne out in this supposition by men who have studied the matter much more than I have. I believe that great mental worry and strain on a system partially prostrated will throw that patient into typhoid fever. I believe, therefore, that it is not dependent upon germs. Howsoever, I believe that germs will come in and infect, as in the excretions from the sewers and through the cess-pools, but I have no doubt that we can have typhoid fever come on autogenetic. Having started out many years ago with a treatment which was successful, I have never changed it. I never use any of the recent remedies. I think the systematic, scientific treatment of typhoid fever is by preparations of acids. Quinine in small doses is required. The great remedy I have always relied upon is turpentine. Half a drachm every two or three hours. I have no confidence in the treatment that will reduce typhoid fever by reducing the fever. I would be afraid to use cold douches. Strong stimulants are necessary to keep up the vitality.

Dr. Batten: I agree with the paper and of course I have no criticisms to make, but there are conditions in the treatment of typhoid fever that require us to move very carefully. These conditions we do not meet in a mild case of fever. I have treated a mild case of typhoid fever in an old lady sixty years of age without any medication and she did excellently and recovered. About fifteen years ago I had a very malignant case of typhoid fever, pregnant about three months, and she ran on very badly until the third week, when miscarriage took place and she lost an immense amount of blood in the miscarriage. There was no decomposition in the fœtus. I had some trouble in getting the placenta delivered, but after it was delivered, and she had lost this blood, the whole type of the fever seemed to have changed, and she made a fine recovery. I do not mean to say that blood-letting in her case would have been the proper thing. Another case that came under my notice. Some of you will recollect that about twenty-five years ago morphia was recommended in cases of delirium to make the patient sleep. This case I saw had been under the care of a physician in Pittsburgh, and the patient was delirious, and it had taken three men to hold him. He was taken to Passavant's hospital. It was about the time cold packs were introduced. I put him in a cold pack twenty minutes and afterward gave him a good dose of whisky. It lowered his temperature and changed his condition and he went to sleep and slept for eight or ten hours soundly, and the disease went on without difficulty to a good recovery. I should state that his temperature when he came into the hospital was about 104.

Dr. Lange: I was very much pleased with Dr. Rigg's paper and the society certainly is indebted to the doctor for the brief but comprehensive résumé presented. There was one point which struck me as being a little incomplete, and which it is profitable to consider a little more in extenso than Dr. Rigg did, and this is the occurrence of pneumonia which Dr. Rigg ascribed solely to changes of the temperature of the atmosphere in the sick-room. Now, there are two kinds of pneumonia occurring in typhoid fever, one of which is very fatal and the other not so. The pneumonia which is not very fatal and which occurs in typhoid fever frequently is croupous pneumonia. I believe with Dr. Rigg that croupous pneumonia occurs frequently in typhoid fever from change of the temperature of the atmosphere, and Dr. Rigg has with him, probably, the majority of the profession, in ignoring the pneumococcus. The other form of pneumonia which is very fatal in typhoid fever is catarrhal pneumonia. It frequently is the direct result of the dirty mouths of patients and comes when the patient is late in the disease. It has been called for this reason deglutition and inhalation pneumonia and is a preventable complication. On the other hand croupous pneumonia comes about the second week. These catarrhal pneumonias are as a rule preventable, and it is the catarrhal pneumonias which make a high death rate in typhoid. It is difficult to keep the mouth clean. In a recent report from Germany where they use the cold bath so extensively, there were reported one hundred cases of typhoid fever without one death, no medicines being used, nothing but the cold bath and scrupulous cleanliness of the mouth. When I had typhoid fever, five or six years ago, I was treated to a cold bath with very bad result. It was followed by an aggravation of an already existing mild bronchitis and coryza. We must conclude that the Germans are a different race; they are more rugged and hearty than the people who live here. They are more rugged than the people we have to treat. You can see that in the emigrants; you can see their full habits and faces, their cheeks red with blood, and their lips scarlet.

Dr. Green: I wish to compliment Dr. Rigg on the paper. His treatment is almost parallel to that which I followed for a number of years with regard to the disinfecting of the intestinal canal. I wish to speak more especially about a remark offered by Dr. Kearns to the effect that the typhoid fever of the present day is not the typhoid fever of twenty years ago. I cannot conceive why it is not and I think we would be mistaken were we to conclude that the doctor is right. I think the typhoid fever of the present is as severe as the disease ever was. Of course we have had epidemics of a mild type of typhoid, but that is no argument in favor of a different type of typhoid to what we formerly had. It is well proven that the typhoid germ exists in typhoid fever, and I think it is acknowledged at the present time and I have no doubt that the germ existed previous to the discovery a considerable length of time, and I think that what causes the apparent change in type of typhoid fever is the treatment at

the present time. The sanitation and medication, I think it is due to them.

Dr. Thomas: I expected to hear more said with regard to the prophylaxis of typhoid fever. I am in the habit of telling patients who have typhoid fever the fact that they have taken into their mouths something to cause the disease. I think the greatest thing we can do for typhoid fever is its prevention, and no one can use a greater influence in bringing about that condition than the medical profession. On the south side we get it once in a while, and we get it under certain conditions just as sure as the sun rises. The circumstances are these: If the river remains low for a number of weeks and the water gets below the combs of the dams, we have stagnant water. In the pool from which we draw our water we have the sewerage of the entire south side above the lock. What do these sewers carry? Fecal matter; they are constructed to carry fecal matter. In addition to that, we have all the sewage and the refuse from Soho, from Minersville, from Hazelwood and in addition to that, we get the sewage from Homestead, Braddock and so on. As sure as we get these conditions, we have typhoid and the epidemic generally comes on within three or four days. We will have to-day three or four patients with symptoms of fever, to-morrow four or five and the next day six or seven, it gets all over the town and that condition lasts until we get a big freshet to sweep out the pool.

So far as the medical profession of the south side is concerned, we have resolved, and have had the resolutions published in the prints of Pittsburg, that the entire cause of the epidemic is bad water. It is said that in Berlin at the present time typhoid is rare, simply because they have a good water supply. Before, it was very common. They tell me that in Johnstown, where the water is gotten from the mountains free from contamination by these germs, they do not know what a case of typhoid fever is, only through cases that come there from other places. We might talk a good deal about typhoid fever, the proper thing is to stop the fever.

Dr. Stevenson: The paper was a very comprehensive, full and truthful statement of the knowledge of typhoid fever to-day. The discussion has covered a number of points embodied in the paper, but there are others, enough left untouched to keep this society talking a long time. I was a little surprised at the statement of Dr. Kearns that certain conditions of depression and nerve disturbances could produce typhoid fever. I presume the doctor would admit that a case of fever originating in that way would transmit the disease to other people. Now, how could nervous disturbance and mental strain originate a specific disease and transmit it to another person? I am unable to understand how to explain this. I think this much is true; that the conditions have a depressing effect and a patient in that way is more exposed to the germs and is more apt to contract the disease. Another of the speakers seemed to be at a little loss to explain the recovery that followed an exhaustive hemorrhage occurring in an abortion in a pregnant woman with typhoid fever. I think the secret is that he had a patient who had a complication. He had a patient who was pregnant, undergoing typhoid fever. The patient lost the pregnancy, the hemorrhage did not happen to kill her and she was in a better condition to get well. It has occurred to me that it is a little curious that both in the paper and in the discussion that has followed, there has not been a single word dropped as to typhoid fever in children. The profession are certainly well aware that typhoid occurs with great frequency in children. It is estimated by the best authorities that one in six of the total number of cases is in children. The diagnosis in children is probably the most important part of the matter. As a rule, typhoid fever in children is mild, but it has been very often mistaken for other diseases.

I do not know that the paper specifically mentions the condition of the tongue in typhoid, but I think this one of the most characteristic symptoms. A moist, heavily coated tongue, with a red area and a red tip. I am not aware the condition comes in any other disease.

In regard to the treatment of typhoid: Typhoid is a self-limiting disease. It has a certain course to run, and the only danger is some complication or some mismanagement that changes the type and character of the disease. Dr. Kearns thinks there is a great difference between the cases of typhoid which he saw earlier, and which we now see. I think the main difference is in the way they are managed. I saw a case in consultation not very long ago in which I found the patient unconscious, with the abdomen like a barrel; tongue dry, lips all cracked and covered with sordes. I asked the doctor what he had been doing. Well, he had put the patient on half-grain doses of calomel every four hours. "How long did you keep that up?" "Five days." "Why did you stop?" "The patient had had diarrhœa." "What did you do then?" "The patient was put on sugar-of-lead and opium—grain and a half of sugar-of-lead, and half a grain of opium. This for four days. The patient's mouth, tongue and lips were all very dry." "What did you do then?" "Put him on turpentine and have him on turpentine now." He is no better. I said, "Doctor, put this man on an ounce of whiskey every hour, and three pints of milk a day and give him nothing else; he will get well." And he did. It looked to me as if that physician had been treating a disease he had produced. He gives calomel, which causes diarrhœa; then he gives sugar-of-lead and opium to stop the complaint. Then he turns around to remove the effects of the sugar-of-lead and opium by the use of turpentine. I think there is very little danger in typhoid fever when the temperature is under 104. If the temperature does not exceed 104, it is well enough to let it alone. If it gets above that it is over the danger line. I think about all there is to it in typhoid is to see that the temperature does not get beyond this danger line, and to see that we do not lose our patient through some complication.

A Special Meeting of English Physicians to Discuss Koch's Remedy.

By Fred B. Robinson, M. D., Toledo, Ohio.

Birmingham, England, April 17, 1891.

The Midland Medical Society of England, met in Birmingham, April 16th, to discuss the question of Koch's lymph. A man seldom sees a finer collection of physicians, enthusiastic with the spirit of medical progress. Every one of these men have had a long and thorough training, but nearly every one came to this meeting with some preconceived notions. Every

minute of time was taken up by the ablest men, who had all done original work with the lymph. Each appointed speaker came armed with ideas to defend his views on the question. One thing is certain that the keen manner in which this subject is at present investigated by the ablest physicians and surgeons will surely extend our knowledge of tuberculosis. Tuberculosis has never had such a sifting since the world began. A fortunate matter in these widespread discussions is that the pathologists are taking an active part. These men generally find what killed the patient, and they astonish us with the facts that latent tuberculous or unrecognized tuberculous is extensive and prevalent. Hence these pathologists tell us we can have extensive tuberculosis with no recognizable physical signs. The first and main paper of the evening was that of Mr. G. Barling, who had done very careful work with the lymph ever since it was announced. Mr. Barling is a well-known surgeon of Birmingham and had systematically experimented on 44 cases. It represents the most extensive work done on the subject in this part of England. Mr. Barling stated that the lymph effects tubercular persons distinctly and markedly different than healthy persons. All his 44 cases gave a reaction. The injection of the lymph gives two kinds of reaction on the patient, one is a general reaction characterized by a rise of temperature. The other is a local reaction known by redness, pain, swelling and sometimes by suppuration. The main diagnostic sign that the patient has tuberculosis is observed in the distinct local reaction from the lymph injection. Mr. Barling asserts that symptoms of reaction occur in all tubercular patients and thus the lymph will be an aid to diagnosis. He said that tuberculine should be given in varying doses and that the early injections gave rise to more changes than later ones. Mr. Barling reports very favorable results in lupus. His 15 cases of lupus all received marked benefit but one. The lymph is more certain in lupus than any other form of tuberculosis.

His joint 4 cases improved the next best to lupus and the third best improvement occurred in bone disease. Mr. Barling thought we should be profoundly grateful to Dr. Koch for his discovery, and that this remedy had a future. Mr. Barling reported no accident while using the lymph nor even a single abscess from the injections. I must say that this was a most excellent paper prepared carefully and scientifically. All chances of error being eliminated as far as possible. One would also think that such a painstaking, able surgeon as Mr. Barling could not be entirely mistaken in his favorable views of Dr. Koch's lymph.

Dr. Carter then read a condensed paper on his personal experience with the tuberculine. He maintained that it was a valuable remedy if judiciously used, but did not consider it infallible as one of his cases appeared to be aggravated by its use. Dr. Carter claimed a very important power for the lymph and that it is a specific for tuberculosis. He said its most specific and selective power is shown on lupus. He stated that the danger in the use of the lymph was in getting rid of the necrosed tissue caused by the lymph. I notice that Koch's remedy like all other measures gradually limits itself to its own sphere. Dr. Carter said that cases for the lymph should be selected in order to be suitable. Early cases of tuberculosis were alone suitable to employ the remedy on. He noted that no general reaction might arise but that a local reaction might occur in the same patient. In short that reaction is an uncertain factor. His experience was the injection of lymph caused arrest of night sweats and generally a gain in weight, He says that only *trial* will demonstrate reaction as no man can tell beforehand how a patient will react. As reaction is uncertain he does not attach much confidence to its diagnostic power. Local reaction is the most certain symptom of the case being tuberculosis. The danger in its use, he says, is generally exaggerated. He predicted that Koch's remedy will prove a valuable addition to our therapeutics.

This ended the reading of the papers and the discussion began in earnest. To say that the debate waxed warm is to speak mild. If the American thinks the English physician lacks energy, enthusiasm and a progressive spirit he should have listened to this debate.

This remarkable meeting for a remarkable object shows that the spirit of progress is contagious among the English. The debate was opened by Mr. Jordan Lloyd, the champion opposer of tuberculine. Mr. Lloyd is a distinguished leading surgeon of the Midland counties and a well-known teacher of a somewhat positive character. He expended considerable energy and enthusiasm in personally investigating the properties of the lymph. He now says the tuberculine is not worth the stamps to bring it to Birmingham.

But Jordan Lloyd does not talk without his books. He brought with him yards of paper, showing the reaction charts of his patients experimented on. He unrolled these great rolls of paper and spread them on the floor much to the amusement of the large audience. Mr. Lloyd enters vigorously and energetically into any cause he espouses, and he is listened to with very great attention and respect by medical men. He declared that no positive cure of tuberculosis had yet occurred; that it is uncertain as a diagnostic agent, and that it is also uncertain in reaction. He asserted that many deaths had occurred from its use and noted such patients. He also said that over one hundred patients had died while taking lymph injections, but did not intend to convey the idea that the lymph injection was the sole cause of the death. He reported that two of his own patients died while taking it. He said he gave a patient with simply granular eyes (but no recognizable trace of tuberculosis) injections and reaction occurred. He also gave real tubercular patients injections who had no reaction. In Mr. Lloyd's own words he said: "The thing is dead, it is killed in the land where it was born." Mr. Lloyd's ten minutes speech made strong impression on the medical men, for he even considered the reported cures in lupus were simply temporary delusions.

Dr. Suckling announced in the debate that he had carefully experimented on twelve cases. He said it not a specific for tuberculosis and has not cured a single case. He used it in well marked cases of tuberculosis where the bacilli were present and no reaction occurred. In three cases injections did clear up the lung. He declared it unreliable as a diagnostic agent. He saw no bad effects from its use. It benefited lupus.

Mr. Bennet May, a surgeon of well-known ability, had tried it and abandoned it. He said it was capri-

cious, hazardous and no specific in tuberculosis. It had no value as a diagnostic agent. He considers it no addition to our therapeutics. He tried it in several cases in which no reaction of any kind arose. In some cases it produced an intense local reaction. Mr. May related the case of a young woman who started to the hospital to be treated for well marked tuberculosis by the lymph, on her way she was suddenly attacked by a severe form of erysipelas, she continued her journey into the hospital and recovered from the erysipelas. But after she got over the erysipelas she became almost cured of her tuberculosis. Now, he said, if this had been treated by Koch's lymph with the amount of improvement that the erysipelas caused in her, it would have been called a "grand success."

Mr. May claims that lymph injections caused a kind of inflammation in the patient which sometimes benefits patients like other inflammations; *i. e.*, that one inflammation may rob another of its power to progress. He said that even Von Bergman, of Berlin, Dr. Koch's admirer, had been compelled now to say that the cure of consumption was still beyond the prophetic eye of science. Mr. May received marked attention while he spoke, as he is a surgeon of known reputation.

Dr. Foxwell, a pathologist, gave a good, sensible short talk on the subject, "It is a Good Omen to See Trained Pathologists Discussing any medical Subject." He spoke of how long tuberculosis may exist in the body without recognizable physical signs. Tuberculine is not a specific in tuberculosis,as mercury is in syphilis, yet it did have a tendency to pick out tuberculous tissue. Injections gave a distinct reaction in nearly all of his cases during a four months' trial. He said the local reaction in the lung is known by increase of moisture, which will be known by extra expectoration. It is not a diagnostic agent. He said a patient may be full of tubercle, but no physical sign can be detected. Dr. Foxwell stated that it was so far the best remedy for tuberculosis except climate. It is too soon to speak dogmatic. He believed that tuberculine had a future.

Mr. Marsh assumed a medium ground. One-fourth of his patients had been improved, but three-fourths had not been changed or improved. The main improvement occurred in his cases of lupus. Mr. Marsh claims that the remedy is uncertain and erratic. He thinks there is a future for the remedy. He is still working at the patients in his hospital, and thinks we can so far not decide on its merits. Time must be the element to arrive at conclusions.

Mr. G. Smith reported that lupus was extensively improved in his experiments. Two of his cases relapsed.

Mr. Crooke, a pathologist, said it is agreed by Germans that lymph effects tubercular tissue, but especially lupus. Mr. Crooke said it is a valuable diagnostic agent in lupus and its local reaction is the most important. He said the lymph must not be condemned too soon as *post-mortems* showed that there was a terrible amount of latent tuberculosis. These autopsies shows we cannot diagnose incipient tuberculosis. He said he was disappointed in the lymph but yet it was a remarkable remedy, for it produces remarkable changes in tissue. Its weak point is that it does not kill the bacillus. He said that the necrosed tissue caused by the lymph might become a source of danger. Mr. Crooke stated that if a man would thoroughly inform himself what tuberculosis is, he would no doubt have very different ideas about a remedy that would cure it.

Mr. G. Barling closed by saying that reaction from lymph injections was a positive sign that the case was tuberculosis.

Mr. Wilson observed that in injecting lymph one should carefully learn the personal equasion relative to dose. This is the most important discussion on the Koch remedy which has so far occurred in England. It must be remembered that the above named are all original workers, that they are also leaders of medical thought and representative men. The debaters were about equally divided on the question. It also represents the more mature thought on the subject. It will appear curious how vigorously one party condemns the lymph and how energetically the other upholds its remarkable powers. All the study and investigation will surely throw a flood of light on tuberculosis, and if the remedy does not prove infallible it will no doubt serve as a stepping stone to some future remedy having still more power. It was a remarkable debate in which champions of original work stated the limits of their claims.

Items of Interest.

The best time to get shoes fitted to the feet, is the latter part of the day. The feet then are at their maximum of size and sensitiveness.

The members of the Chicago Retail Druggists' Association met at the Grand Pacific Hotel recently for the purpose of securing a written agreement from a patent medicine company, but the representative of the latter concern refused to comply with their requests. It appears that the patent medicine which the druggists are raising so much disturbance about is being sold for 87 cents per bottle by several dry-goods firms. The druggists sell the preparation for $1 per bottle. They claim that the dry-goods firms are injuring their business and want the patent medicine company to agree not to sell the preparation to any one but druggists. The representative refused and the druggists say they will not handle the medicine.

THE DOCTOR'S EARNINGS.

According to Dr. Jarvis' tables, the average of the lives of physicians is fifty-six years. If you begin practice at twenty-four, your active-life prospect will be thirty-two years, and from a thousand to fifteen hundred dollars will represent your average yearly income. Now, were you (through God's mercy) to practice these thirty-two years without losing a single day, and collect (say) eight dollars every day of the time, you would receive but $93,440. Deduct from that amount your expenses for yourself and your family, your horses, carriages, books, periodicals, and instruments; your taxes, insurance, and a multitude of other items for the whole thirty-two years (11,680 days), and then, so far from being rich—you would have but little, very little, left to support you after you naturally reach the down-hill of life, or are broken down in health, and faculties deteriorated, and in need of a physician yourself, through worry, anxiety, and fatigue, in the discharge of your duty.—*Kansas Med. Journal.*

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

Consanguinity of Disease.

Dr. Lydston's article in this number calls attention to the above subject in a most interesting manner. We regret that the author did not delve more deeply into this important question. There is one point which deserves especial consideration, viz.: Why is it that the results of Consanguinity are so much more disastrous in man than in animals? We believe that the answer is simple. Given a series of persons related by blood, and let them be bred as carefully as a stock breeder does his animals and we will have similar results. Unfortunately that chimerical and unphysiological sentiment called love prevents proper selection in human breeding. A sickly first cousin is in love with a microcephalic second cousin, or a syphilitic uncle fain would marry a consumptive niece. What care they if disease and death for posterity lurk in the matrimonial pot? But animals have no false and sickly sentiment to combat. In the natural state sexual selection settles the question, and under domestication the selection of a skillful breeder decides it. Society and its *ignis fatuus* love, are the fostering elements of idiots, consumptives, albinos, criminals, and so on ad infinitum. Let the young man marry his cousin if he will, but before the electric light of sentiment magnifies her attractions, let him look at her through the glass of science and see how she pans out as an animal; if she passes muster, then and only then, fall in love with and marry her. And the rule will work both ways. Let the young woman turn the scientific battery loose upon her cousinly Adonis and see how he will stand fire. If he is a good animal, well and good, if not—well she had better go out of the family for a father for her children.

Consanguinity *per se* is not dangerous within a single generation; but as practiced by humanity at the present day it is destruction itself. The eternal shores are peopled with troops and troops of poor microcephalic, idiotic, criminal and consumptive shades who bear testimony to the blindness of humanity, a blindness due to sentimentality pure and simple.

Neuroses of the Genito-Urinary Apparatus.

The term genito-urinary neuroses, is properly limited the term to cases of purely functional derangement of the genito-urinary organs dependent upon pathological conditions of neighboring organs and conditions—probably of a spasmodic character—immediately dependent upon organic lesions of some portion of the genito-urinary tract itself. There are few morbid conditions of a functional character, which are so trying to the patient or so embarrassing to the surgeon, and in the experience of physicians it is found that they are apt to be more often consulted regarding these functional nervous derangements than for the actual diseases upon which they depend. In view of the vast amount of labor and talent that has been devoted to the study of the reflex neuroses of women incidental to pathological conditions of the uterus and its adnexa, it is surprising that more attention has not been given to analogous conditions in the male, due to disturbances of the generative organs, and especially of the urethra.

Taking as the point of departure the prostate, there will be found a close similarity between some of the morbid states affecting it and certain pathological conditions of the uterus. Anatomically and physiologically the prostate strongly resembles the uterus. The tendency of the muscular tissue to undergo degeneration, and form fibro-myomatous growths is strikingly like that observed in the case of the uterus. It will be found that certain remedies which have a marked action upon the unstriated muscular fiber of the uterus have a somewhat similar action upon the prostate, this being especially true of the ergots of rye and corn and hamamelis. Certain sedative remedies have a special controlling effect upon irritative affections of the uterus, ovaries and prostate alike. Carrying the argument a little further, it will be found that certain irritations of the prostate produce effects very like that induced by utero-ovarian irritation in women. False spermatorrhœa—spermatophobia—speudo-impotency, involving disgust for the sexual act, melancholia, hypochondria, neuralgias, whether of contagious or remote nervous filaments and nervous inhibition, amounting almost to complete paralysis, are all possible results of urethral or prostatic irritation, and these conditions are all represented by very similar disturbances, such as hysteria and its congeners in the female, due to morbid conditions of the generative organs.

One of the interesting features of stricture of the urethra is the ensemble of symptoms of a nervous character that is so often seen, these neuroses being often entirely disproportionate to the degree of organic trouble present. Cephalalgia, neuralgia in various localities, particularly sciatica, lumbar and intercostal neuralgia, are quite common, but are probably regarded by both physician and patient as coincidences rather than as bearing any consequential relation to the stricture. Associated with these symptoms are others, quite as prominent in some cases, of a purely mental character, such as melancholia, disturbed sleep, hypochondria, incapacity for intellectual effort and deterioration of business capacity, perhaps associated with great irritability of temper. Disturbed digestion and general impairment of nutrition are quite constant. That these various abnormal conditions depend upon the stricture, is never appreciated fully until that organic disease is cured, when the complete restoration to health demonstrates their true relation to the primary source of irritation. Some cases of gleet are associated with considerable mental depression, which is commonly ascribed to the moral effect and the supposed drain upon the system. This lack of mental equilibrium may arise from reflex irritation through the sympathetic system, which is so closely allied with the functions and nutrition of the sexual organs. Morbid conditions of the urethra not only cause reflex neuroses in other portions of the body, but they are frequently the reflex result of disease of contiguous strictures. Thus we have noted cases of spasmodic stricture depend upon hernia and varicocele, and Dr.

Otis has described some very interesting cases of chronic spasmodic stricture of reflex origin. Operations about the anus are frequently followed by spasmodic stricture and consequent urinary retention and morbid conditions of the interior portion of the urethra often cause reflex disturbances of the deeper portion of the canal or indeed of the bladder. This is very familiar in connection with the results of contraction of the meatus.

Transperitoneal Hysterorrhaphy.

From time to time the various methods for permanently anteverting the retro-displaced uterus have been commented upon in the *Reporter*. Dr. Florian Krug, of New York, has proposed a new method of ventro-fixation of the uterus without opening the peritoneal cavity. His method is applicable only to cases of obstinate, movable, backward displacements of the uterus, which have not proven amenable to other treatment. The technique is as follows: The patient is put in Trendelenburg's position, the usual preparations for an abdominal section having been made. An assistant now seizes the anterior lip of the cervix with a tenaculum, and inserts a sound into the uterus, and a catheter into the bladder; and brings the uterus forward by gentle efforts, against the abdominal wall. A small incision is now made through the linea alba down to the peritoneum, at the point which is selected for the attachment of the uterus. The finger inserted into the wound can locate the fundus, and also the bladder, when the sound and the catheter are alternately pushed upon. A special needle is now passed through the abdominal wall into the peritoneal cavity, and is made to denude about one square inch on the anterior surface of the uterus, the needle then being passed through the body of the uterus and made to emerge at a place opposite to the point of entrance. It is now threaded with silkworm gut and withdrawn. The suture is now tied, and usually suffices to close the wound. From five to eight minutes are required for the operation. Dr. Krug has operated upon six patients with good results.

The test of the value of any operative procedure is the results to be obtained by its use. At the same time, the writer does not believe that the procedure proposed by Dr. Krug has a wide field of usefulness. Many retro-displacements of the uterus, in which the uterus is freely movable, give rise to no symptoms, and require no treatment. Most cases which cause suffering are curable by the proper use of tampons and a pessary, and it is only the small remainder for which the operation is recommended. In these cases the operation comes in competition with Alexander's operation, with hysterorrhaphy done without incising the abdominal wall (Kelly), and with hysterorrhaphy preceded by abdominal section (Olshausen, Kelly). It is difficult to see how that this method gives a better fixation than is obtained by ventro-fixation without incision of the abdominal wall, and the writer is aware of no case in which permanent fixation has been secured by this method. The subsequent behavior of these six cases will be awaited with interest, for if the fixation prove permanent, Dr. Krug will prove a benefactor, as providing an easy method of curing certain obstinate, backward displacements of the uterus.—*Med. and Surg. Reporter, Phila.*

Abstracts.

Ophthalmology.

Rupture of the Left Eye From the Kick of a Horse.—J. J. Snyder, M. D. The *Medical World.*—On January 9, 1891, A. L., aged 19, received a severe kick on the left side of the face from an unshod horse which ruptured the eye; this being followed by evacuation of the vitreous humor and collapse. One of the wounds extended from the junction of the temporal and malar bones upward about one inch and a half; another beneath the supra-orbital arch, from the external angular process, the hoof of horse rupturing the eye immediately behind the lens on its inner side, and the third wound almost level with the second; cutting through the tissue and nasal bones without any displacement of the fragments, but making an opening through which the air escaped during expiration. There occurred a profuse venous hæmorrhage, the tissue surrounding the orbit being greatly swollen, contused and ecchymosed.

No one was with the patient at the time he was struck, and he was not able to state anything definite about the accident, except that he fell, this statement being accepted as a fact, that he must have tripped and was falling when struck, the wounds being inflicted from above downward. He was unconscious for a few minutes and after recovering suffered for several hours from a slight mental aberration, but no symptoms appeared denoting compression, either by depression of bone or effusion of blood.

After cleansing the wounds thoroughly the edges were united by interrupted suture, iodoform sprinkled over and wet compresses and the crucial bandage applied. The compresses were constantly irrigated with cold water and the dressings were not removed until the end of the third day, when the wounds were found to be slightly suppurating, but uniting. The tumefaction having somewhat increased, a brisk cathartic of sulphate of magnesia, one-half ounce in infusion of peppermint was given, with the result of quickly reducing it. The wounds were dressed with simple cerate and solution of sulphate of zinc and morphine after the removal of the cold water dressings.

There was but little suppuration and this disappeared in two days, but the eye was not opened for examination until nearly a week after the accident, when it seemed to be rapidly filling and he had some vision which gradually increased until at the expiration of a few days, when the patient stated he could see quite distinctly. The other wounds on face healed quickly without deformity, and at no time during the week was his fever at all high, pulse reaching 80 only one day.

Comparison of the Ocular Troubles in Locomotor Ataxia, Multiple Sclerosis, and Hysteria.—In a recent clinical lecture at the Salpetrière, Charcot considered comparatively the ocular troubles occurring in tabes, multiple sclerosis and hysteria.

Amblyopia with nacreous degeneration of the papilla is often the first symptom of locomotor ataxia, even preceding the motor incoördination, the diminution of the reflexes, the lightning pains, by many years.

Nystagmus, when not hereditary, has a symptomatic value almost as great in the diagnosis of disseminated sclerosis.

In tabes, paralysis of the motor muscles of the globe of the eye are very frequent; especially paralysis of the muscles innervated by the *motores oculorum*. When in presence of the diplopia proper to paralysis of the third pair, one should always have in mind the probability of tabes. Paralysis of the abducens has also been witnessed in tabes, but very rarely.

In disseminated sclerosis, it is the abducens which is attacked in preference; paralysis of the motores oculorum is much less frequently seen.

Hysteria may sometimes engender strabismus by paralysis or by spasm; it may give rise to associated paralysis, but never to nystagmus. In hysteria there is also the lid-drop, and the ptosis is due, not to paralysis of the levator muscle, but to spasm of the orbicularis. We find, moreover, in hysteria a symptom not met with in any other affection, namely, monocular diplopia, so well studied by Parinaud. Diplopia is generally binocular, and is due to paralysis of the third pair of the abducens.

The condition of the pupils in locomotor ataxia is peculiar; they are generally contracted. This is especially noticeable in patients who have blue eyes. Sometimes the pupils are unequal; one is moderately dilated, the other is small. This inequality of the pupils is only seen in two diseases—general paralysis and locomotor ataxia. There is another sign equally common to the two affections; that is, what is designated under the name of the Argyl-Robertson pupil. If near to one of these pupils when moderately dilated you hold a light, the pupil does not contract; if you place the patient in a dark room, you will observe that the pupils fail to dilate. The pupils do not contract under the influence of light, while under the influence of efforts of accommodation, they react as in the normal state.

Nothing of this kind is observed in multiple sclerosis. Generally in this affection there is nothing special to remark in reference to the pupil.

In tabes, one may frequently witness sclerosis of the optic nerve; the ophthalmoscopic observation is like an autopsy on the living subject. The retinal vessels are seen to be small and atrophied; the nerve has a pearly-pale, anæmic aspect (nacreous papilla); these appearances are always of unfavorable augury, and the patient who presents them will be surely tabetic and blind in the course of a year or two.

In multiple sclerosis, there may be lesions of the fundus oculi, but both eyes are not irretrievably affected, and the ambryopia lasts only four or five months; at the end of this time, there is always an amelioration. Ulthoff, out of one hundred cases, noticed but one case of blindness. In this form of sclerosis, the contours of papilla are less sharp than in the normal state; there is a sort of cloudy exudation, the vessels are atrophied; the general aspect is that of a dull, yellowish-white in extreme cases.

In hysteria, there may be amblyopia, even complete amaurosis, but the modifications of the papilla noted in sclerosis are never witnessed; the functional troubles may be very pronounced, but are sure to disappear. Hysteria almost always causes a contraction of the visual field, which is concentric instead of being irregular, as is the case in locomotor ataxia. In the latter disease, the campimetric image presents notches and indentations; at the same time, there supervenes a dyschromatopsia which has quite peculiar characters. An individual, who is not affected with congenital Daltonism, will affirm that the pantaloons of the foot soldiers appear to him black; the trees, instead of being green, are to him of a grayish-black color; at the same time vision for yellow and blue is still perfectly good. By and by the vision for yellow and blue ceases in its turn, the visual field contracts more and more, till white itself is no longer perceived.

In hysteria, dyschromatopsia is much less frequent than in tabes, and when it does exist, the colors do not disappear in the same order. It is first the blue which is no longer perceived, then the yellow, then the other colors successively, with the exception of red, which persists alone during a very long time.

In disseminated sclerosis, there is nothing to note respecting the visual field or the perception of colors. —*Boston Med. and Surg. Journal.*

Gynecology.

Large Multilocular Cyst of the Ovary. Laparotomy. Recovery.—W. B. Coley, M. D. *N. Y. Med. Journal.*—A. G., aged thirty-five years, suffered an increase in size for five years, and at the time of her admission to hospital the abdomen was greatly distended and the intestines were crowded up into the region of the ensiform cartilage. She had been tapped about ten days before and eighty pounds of clear yellow fluid withdrawn.

A median incision fourteen inches long was made and a large multilocular cyst was found, attached by old and firm adhesions to the ensiform cartilage above and to all the abdominal viscera, evidently having its start in the left ovary. There was considerable hæmorrhage but it occasioned no trouble, being easily controlled and the glass drainage tube was taken out at the expiration of one day. The abdominal wound healed perfectly, and on the eighth day when the dressings were first removed the intestines were still in the upper portion of the abdomen, and the anterior abdominal wall was in contact with the spine. There was a mild attack of intestinal obstruction which lasted a few days during the third week, but they slowly regained their natural position and the abdomen its normal shape. The patient was discharged cured in less than two months after the operation.

Medicine.

Death from Disease of the Cervical Glands.—*New York Med. Journal.*—A fatal termination due directly to diseased cervical glands is an unusual occurrence. The accident is, however, possible, and with the slightest symptoms of interference with respiration, either direct or indirect, delay in operative interference is dangerous. This is true even when the enlargement of the glands is moderate and recent. A number of such cases have been reported in the English journals, and they would seem to be more common in England than in this country. Dr. Thornton, in a recent number of the *British Medical Journal*, reports two of considerable interest. The first patient was a girl, eight years of age, having a few small isolated glands on each side of the neck. The mediastinal glands showed no enlargement and there was no pressure on the trachea. The child gradually wasted and after five months died. A week before her death she began to cough up foul-smelling pus. The autopsy showed the superficial cervical glands to be ordinary tuberculous glands, caseating in parts.

Immediately behind the lower end of the trachea there was an abscess cavity with two or three small glands matted together, degenerated and discharging into the abscess sac at its upper end. Between the lower end of the abscess and the trachea there was a ragged opening. In the second case the glands gradually enlarged to form compact masses, filling both anterior triangles, but without causing apparent pressure on the trachea. Symptoms indicating suppuration were present, but none could be detected on examination. The respiration was free, but had a peculiar harsh sound, which had been noticed also in the first case. The patient died suddenly with gasping and choking. An autopsy was not allowed, but, from a consideration of the symptoms and mode of death, it is reasonable to suppose that the boy died from the sudden bursting of a glandular abscess into the trachea, with the pouring out of sufficient matter to cause suffocation or perhaps spasm of the glottis. It is at least certain that death resulted in a subject whose only apparent disease was enlargement of the cervical glands.

PYÆMIA FOLLOWING SCARLET FEVER. SUPPURATION IN PLEURA AND ELBOW JOINT. RECOVERY.—Dr. Caiger. *The Lancet.*—F. H., when eight years of age, was taken with severe scarlatina, the rash being almost hæmorrhagic, the fauces much ulcerated and there was an offensive rhinorrhœa. The glands at the angle of the jaw and under the sterno-mastoid became much swollen, hard and tender, with extensive infiltration of brawny character in the cellular tissue around. This continuing to increase with accompanying high temperature, chloroform was administered and free incisions made into both sides of the neck. The superficial portion of the swelling was hard and glistening on section, yielding a thin ichorous discharge, pus being found deep down in the neck. The swelling not subsiding in four days, more incisions were made on the left side, the rash still remaining dark and staining. The following day some relief was felt from the trouble but the temperature continued high. This improvement in the swelling was experienced for about ten days when the swelling increasing on the left side a fresh collection of pus was found deep down in the neck, which was incised and a tube inserted. The temperature varied from 100 to 105 degrees but the strength of the little patient was kept up fairly well by stimulants and nourishment. The neck discharged freely and the swelling was less marked.

Four weeks after seizure there appeared well developed pleuro-pneumonia of the left lower lobe, this condition continuing for six days when a tenderness was complained of in the left elbow, and the joint was found hot, tense, tender and fluctuating. Chloroform was administered and a drainage tube put through the joint, which after the pus had been evacuated, was irrigated with 1–20 carbolic acid solution for some time. Strips of lint soaked in carbolic lotion were tightly applied around the joint, outside of which were placed several layers of sublimated wool, impregnated with iodoform. A firm elastic bandage was applied to keep up pressure on the joint, and after lightly bandaging the arm on to a pasteboard splint, the dressing was not disturbed for four hours. There being no pain experienced in the elbow the tube was not removed for several days, and the discharge of pus gradually disappeared, but the breathing began to be difficult, and the right pleura was again aspirated, and one pint of pus removed. One week after the right pleura again filling, chloroform was administered and the empyema opened, an inch and a half of the tenth rib resected and a double drain inserted. Two pints of pus were evacuated and the cavity was syringed out with 1–60 carbolic acid solution. The patient stood the operation well, with no rise of temperature, and two days after about a pound of solid coagulated lymph was evacuated by coughing.

Improvement took place rapidly after the last operation and ten days after he was allowed to leave his bed, the lung being entirely recovered and there appeared no difficulty whatever in the elbow joint, extension and flexion being in all respects complete.

Therapeutics.

THE USES OF SULPHATE OF SPARTEINE IN CASES OF MORPHINE HABIT.—M. Ball and Dr. Oscar Jennings, after considerable experience in severe cases, have found the best course of treatment for tiding over the difficulties of the time of the compulsory abandonment of the morphine is by hypodermic injection of sulphate of sparteine in doses of from one-sixth to one-third of a grain. This acts as an immediate cardiac stimulant. They do not find sudden and complete suppression of the use of morphine in such cases always advisable, but give some occasionally in dangerous collapse. They testify also to the usefulness of a few drops of a solution of nitro-glycerine put on the tongue as giving momentary relief in moments of crisis.—*The Practitioner*, June, 1887.

NAPELLINE IN FACIAL NEURALGIA.—In a paper on napelline in facial neuralgia, M. Grognot adduces the following case by way of illustration. He states that he was called to see a young girl suffering from severe pain extending over the entire head, which felt, she said, "as if it were pressed in a vise." The pain, however, was greatest on the right side in the parietal and frontal regions, and immediately above and below the eye it attained its maximum intensity. There were no tears, but, according to the patient, there had been in previous attacks. The tongue was slightly coated, but there were no caries of the teeth on the side affected. The author prescribed one granule, containing ½ grain of napelline, every two hours. On the first day the patient took ten granules; during the evening the pain disappeared. Altogether the pain had not returned the next morning, the patient was advised to take four granules and two the following day. Two months later the patient's neuralgia reappeared, and she took eight granules. The next day he found the neuralgia had disappeared, and since that time the health of the patient has been excellent.

Napelline is an alkaloid, obtained from the aconitum napellus. An account of its chemistry appears in the *Pharmaceutical Journal* for 1872, p. 245. It is mentioned in the Supplement to Neale's "Digest." It is said to occur as an impurity of the amorphous aconitum.

ACONITINE IN NEURALGIA.—Crystallized aconitine, when properly used, is one of the most powerful remedies in certain kinds of neuralgia. It is most valuable in so-called "essential" neu-

ralgia, especially facial and trigeminal neuralgia. It it best given in the form of granules containing a quarter of a milligramme of crystallized aconitine, or crystallized nitrate of aconitine, the doses being the same. An interval of four hours should be allowed between the doses, the total quantity of the drug administered in the twenty-four hours not exceeding one milligramme. There are forms of obstinate facial neuralgia, however, such as the intermittent variety, which resist the action of aconitine alone, and these likewise prove refractory to quinine alone. In such cases, success may be achieved by combining the two drugs. This may be done in pills as follows :

℞. Hydrobromate of quinine, 10 centigrammes; crystallized aconitine, ¼ milligramme.

One pill containing the above quantity of quinine and aconitine to be taken every four or five hours.

Salicylate of Lithia in Rheumatism.—Dr. Vulpian states that salicylate of lithia is more efficacious than the salicylate of soda in cases of acute and progressive sub-acute articular rheumatism. It also has some effect in chronic cases when a certain number of the joints are still deformed, swollen, and painful. 4 to 4½ grammes, and even 5 grammes may be given in a day. If the improvement is not lasting, 50 centigrammes may be added to the daily dose. Sometimes when the dose is increased to 5 or 5½ grammes, symptoms of intolerence begin to be shown. Salicylate of lithia may be given dissolved in water, in powder, or in unleavened bread, during or after meals, in doses of 50 centigrames. The physiological effects of the drug are headache, giddiness, and deafness.

Colchicine.—At a recent meeting of the Academy of Sciences, MM. Mairet and Combemalle communicated the results of their researches on the effects of colchicine. This drug acts, according to the dose, either as a diuretic or a purgative. The effects produced are more rapid when colchicine is administered subcutaneously. The dose should be from 2 to 3 milligrammes to produce diuresis, and 5 milligrammes when given as a purgative. Colchicine increases the excretion of uric acid, and diminishes the quantity of uric acid in the blood. Its accumulation in the system, however, and its highly poisonous nature, make it necessary to use it with caution.

Valerianate of Quinine.—Dr. D. Manuel Delfin reports in the *Cronica Medico Quirurgica*, of Habana, the results of the administration of valerianate of quinine in six cases of acute tetanus, founding the indications for its employment upon his belief that the disease is paludal in its origin. Out of six cases four recovered; one died who was insane, and refused treatment; and the last one who died was a very severe case, who had once before recovered from tetanus under the use of the quinine preparation. In most cases the more usual remedies—bromides, chloral, etc.—had been previously exhibited without effect. The dose of valerianate of quinine employed at first was one gramme. It is not stated whether this was afterward increased, or at what intervals it was repeated.

Alkaloids of Quebracho.—M. Huchard (*Bull de la Soc. Ther.*) has lately made a study of the physiological action of these. He finds that they are all poisonous to animals, producing death rapidly, preceded by convulsions and paralysis. Aspidospermine is the least poisonous of the several alkaloids. This alkaloid also is the only one which was found to relieve asthmatic symptoms. The companion alkaloids of aspidospermine are quebrachine, hypoquebrachine, quebrachmine, aspidospermatine and aspidosamine. The first two of these are the most poisonous. All the alkaloids reduce the temperature of healthy animals, quebrachine having the greatest effect in this direction. They are of no practical value, however, as antipyretics, having little effect to reduce abnormal temperature in the human subject. Functional dyspnœa is relieved by aspidospermine (pure, one to two and one-half grains daily), but the remedy has little or no effect where the cause of the dyspnœ is organic.—*Phar. Era.*

Pilocarpine in Acute Affections of the Respiratory Organs.—In certain acute affections of the respiratory organs, Dr. Wyss, as quoted by the *Medical Record*, has given small doses of pilocarpine, as one-sixth of a grain, with decided benefit. A case of acute coryza is reported, with intense congestion and swelling of the conjunctiva and nares, and pharyngeal dryness. Recovery in three days under the use of one-sixth of a grain of pilocarpine at bed-time. An acute attack of laryngitis in another patient with loss of voice was similarly benefited. A man aged 44, suffering from acute pharyngo-laryngitis with frequent attacks of suffocation from œdematous swelling, experienced marked relief with restoration of voice after the first dose of pilocarpine taken at bedtime, and had no more attacks of suffocation. A case of acute laryngo-bronchitis with violent dyspnœa and labored respiration, was speedily relieved by a quarter of a grain dose at bed-time; and another of bronchitic asthma and hypertrophic rhinitis was similarly benefited by one nightly dose of a sixth of a grain. This patient, who had been for many years a great sufferer from asthmatic attacks, stated that no other remedy had ever given her such rapid and permanent relief.

Small Doses.—The actual tendencies of therapeutics are generally favorable to the administration of fractional doses, at least doses very much smaller than were prescribed twenty or thirty years ago. Ringer in England, and Bartholow in our own country, have contributed so much to instill these tendencies in their disciples, as almost to have erected on it a system. If on the one hand it is good to depart in a just measure from the abuses of the large doses heretofore given, on the other it is not the part of wisdom to fall into excess, in the other extreme, under pain of falling into homeœpathy, or into its dosimetry, which amounts to the same thing. At least it is well to confine oneself to appreciable doses. There is no doubt that we are able to obtain from medicines given in small quantities, very astonishing effects, and marked difference in their action, dependant on small or large doses. Those who have written on this subject, cite remarkable examples to point. We may mention one of these in the article of Dr. John Aulde of Philadelphia, communicated to the *Medical and Surgical Reporter*, and from which we extract the following:

"In the case of acute tonsillitis, of acute bronchial catarrh, of impending pulmonary congestion and of congestive cephalalgia, we obtain immediate favorable results from the administration of one-half drop

of tincture of aconite every half hour for several hours. Atropine in dose of 1-200 taken at bed time is very efficacious in the case of incontinance of urine in infants. Small doses of nux vomica, one drop of the tincture or 1-20 gr. of the extract is often more useful one as a tonic than larger doses. It is doubtful if any remedy is able to give better results in the internal treatment of boils, than the sulphide of calcium in doses of 1-10 gr. every two hours. One-half drop of tincture of Indian hemp, repeated every five minutes, procures very marked relief in many cases of congestive dysmenorrhœa and in neuralgia.

Diaphorcsis may be produced by the administration at short intervals of one-half drop of extract of jaborandi.—*L' Union Medical du Canada.*

Surgery.

A Case of Congenital Malformation of the Penis.—G. G. Parsons, M. A., M. B. *British Med. Journal.*—On February 21st, while at Limon, Costa Rica, I was asked to see a male negro infant, aged about 3 months. The mother stated that the child ever since birth had passed his urine entirely by the bowel. The infant was plump and well-nourished, the prepuce was imperforate, but the genitals appeared otherwise normal. There was, however, a rudimentary sixth finger on each hand.

Thinking the case simply one of imperforate prepuce with recto-vesical fistula, I put the child under chloroform and performed circumcision. On the glans penis being exposed I found that the urethral orifice was entirely absent, the situation of the meatus being marked only by a slight dimple. I then passed a narrow Paget's knife into the glans in the direction of the urethra to the depth of about a quarter of an inch and succeeded, after several attempts, in finding the termination of the urethra and introducing a probe, on the withdrawal of which about a drachm of urine escaped. The wound was dressed with carbolized vaseline, and the mother instructed to pass a fine bougie into the urethra daily for the distance of about an inch. The additional fingers were amputated at the same time.

I had an opportunity of seeing the child again on March 4th. The wounds were then healed, and a No. 1 black French catheter could be passed into the bladder without difficulty.

Suture of Tendons Eleven Weeks After Division.—T. Preston Gostling, M. D. The *British Medical Journal.* A man presenting himself for examination, stated that eight weeks previously while engaged in trimming a rose-bush, the knife he was using slipped and inflicted a transverse wound on the outer side of the left wrist, just above the thumb. As it healed readily, nothing was thought of the accident until it was found that the thumb could not be moved voluntarily. The thumb was flexed into the palm and adducted, and the patient was unable to pick up any thing or hold anything unless the thumb was first lifted and the article to be held was placed between it and the hand. Any variety of passive movement was possible, but the only active movement which remained was extension of the terminal phalanx, the thumb being rendered motionless owing to the unopposed action of the flexor longus pollicis, adductor pollicis and the flexor brevis pollicis. At the base of the metacarpal bone there was a transverse scar an inch long on the outer surface of the left wrist, while just below this the distal ends of the tendons of ext. primi internodii pollicis and extensor ossis metacarpi pollicis could be easily felt, but the position of the proximal ends could only be indistinctly made out five inches off on the back of the forearm.

It now being eleven weeks after the accident had taken place, it was deemed advisable to try to unite the ends of the tendons, and the patient being placed under chloroform, an incision was made from the site of the distal ends of the tendons to the supposed position of the proximal ends. The distal ends were found at once, but it was discovered that the synovial sheath was blocked at the site of the scar by a mass of connective tissue, for three-quarters of an inch, which was obliged to be cut through before the proximal ends of the tendons were found. They had not contracted any adhesions, but were fully five inches apart and it was impossible to bring them nearer than three quarters of an inch. The ends were pared, stitched together with catgut sutures, the small vessels tied, and the whole wound closed with silk sutures, and a wool dressing firmly applied. A special splint was put on in such a way that the thumb was kept extended until after wound had entirely healed when it was found that all the active movements of the member had been fully restored.

Broken Catheter in Male Bladder at Seventy Years of Age. Internal Urethrotomy. Recovery.—G. Buckston Browne, M. D. *The Lancet.*—A man seventy years had long suffered from urethral stricture, which had induced some vesical debility, and occasioned the use of a small gum elastic catheter each day in order to draw the residual urine, amounting generally to about three ounces. The stricture was situated three inches from the external meatus and admitted a No. 4 catheter, but one day after using and withdrawing it, he found that there had been about an inch left in the bladder. As he was advised to wait and see if it would not come away naturally, time went on until he experienced great pain and irritation and three months after the accident, he came under my observation and upon introducing a sound, felt what was practically a stone in bladder.

It having been decided to resort to operative means to relieve the patient, one week after he was placed under an anæsthetic and an attempt to dilate the stricture failing, internal urethrotomy was performed, the stricture incised by means of Civiale's urethrotome, and a No. 14 sound passed with ease into the bladder. A lithotrite being introduced the body was seized and lightly crushed, the stony crust removed effectually and the foreign substance ready for evacuation. It was therefore drawn into the neck of the bladder, but it now met with a resistance, and was evidently held crossways between the jaws of the lithotrite. After some little trouble it was removed, and upon inspection proved to be more than an inch of black gum catheter and had been entirely covered with calculous matter, but now almost denuded of its phosphatic coat. By means of a lithotrite tube and aspirator all the calculous deposit was evacuated from the bladder and the patient made a good recovery, experiencing no pain or loss of blood, and being able to be about in ten days.

Laryngology.

EXCISION OF THE THYROID FOR MALIGNANT DISEASE. RECOVERY.—THE *Lancet*.—A blacksmith, fifty years of age, a native of Buckinghamshire, was admitted to the hospital in March, 1890, with an enlarged thyroid. He had noticed the swelling about ten years before, but upon consultation it was stated to him that it was simply an enlarged gland, and he painted it with iodine. This did not prevent the swelling from increasing, and for some months before his admission, he had been unable to partake of solid food.

Upon examination there was found a huge lobulated tumor in the front of the neck, larger on right than left side, and extending upward behind the angle of the jaw on either side, downward as low as the sternum and clavicles, and backward to the level of the ears. It moved with the trachea on swallowing, and the lobes on either side of the neck were connected by a central enlargement passing over the front of the windpipe. All the lobes were lobulated, simulating enlarged lymphatic glands, somewhat elastic and the right quite tender. The measurements of the neck showed twenty and three-fourth inches around the largest portion of the tumor. Owing to the pressure of the growth on the trachea, there was stertorous breathing and the radiating pains in the neck caused considerable headache. As the tumor showed signs of rapid growth it was decided to operate for its removal, commencing with the right lobe.

Three weeks after his entrance an anæsthetic was administered and a longitudinal incision about five inches long was made in the middle line of the neck, the tissues divided until the gland was reached, and as it was found impossible to remove the gland through the incision, a further one was made three inches long, starting from the upper extremity of the first incision and in a direction parallel to the ramus of the jaw on the right side. This flap of skin, with platysma, fascia, etc., was dessected from the gland and turned outward. The sterno-hyoid muscle was pulled over to the left, but the sterno-thyroid and omohyoid, which were thinned out over the tumor, were divided and the right lobe thus fully exposed was slowly dissected out in its capsule, the bleeding vessels being ligatured as they were divided. After this was completed, and the gland freed of all connections except the enlarged isthmus, this structure was ligatured and divided and the right lobe thus removed. A huge cavity remained, bounded posteriorly by the carotid sheath throughout its whole length, while below the pleura could be seen rising with each inspiration. The larynx and trachea were flattened out and twisted over to the right side, and the wound washed out with boracic acid solution, the edges united by silk gut sutures, and a dressing of iodoform gauze and absorbent wool applied. There was but little hæmorrhage following the operation, and small rise of temperature, the wound healing by first intention and in seven days patient was able to leave his bed. In two weeks he returned home, and when he presented himself for examination in four weeks, stated he was able to take solid food, with no trouble whatever of his breathing, and his health since operation had been excellent.

It now being decided to remove the left half of the tumor, it was done in exactly the same manner as previous operation, on this side however, the superior thyroid vessels were much smaller and the inferior larger than were met with on right side. The recurrent laryngeal nerve was seen underneath the tumor and avoided. This operation was followed by the same success in healing as former and the man left for his home three weeks afterward, quite recovered, the circumference of his neck being but fourteen and one-half inches.

Obstetrics.

OCCLUSION OF THE OS UTERI DURING FOUR DAYS PARTURITION.—Dr. Neale. The *Times and Register*. Mrs. K. W., aged 26 years, became pregnant in April, which proceeded normally until the middle of November, when she slipped and fell violently on her right side on the sidewalk. She experienced no discomfort at the time except from the jar and consequent bruising, and was able to be up and around constantly, but no movements of the child were felt after the fall. Some six weeks after an offensive, yellowish vaginal discharge occurred which continued for one week; and two weeks after this the first labor pains began, being so severe that morphine was administered. Three days afterward she came under my charge.

An examination failed to distinctly map out the child, and not a trace of fœtal heart sounds could be heard. A vaginal examination revealed a very short and small vagina, no cervix and no os. A continuous layer of mucous membrane, flush with the vaginal walls, closed over the entire vault of the vagina, and a little dimple in its center was the only indication of where the os ought to be.

Chloroform was administered, the hand passed into the vagina, and the fingers pressed firmly against the dimple, bursting it and permitting considerable bloody water to escape. The rapidly enlarging outlines of the os were now felt about as wide as a silver half-dollar piece. The soft bagging scalp and loose cranial bones came down upon the enlarging, and as the expulsive efforts were not sufficient the head was grasped with a Simpson's craniosclast, but as this did not answer, the blades of a Tarnier basiotribe were adjusted over the head and neck, and a thoroughly macerated, but not decomposed or foul, small child was easily extracted. There was no laceration of perineum and os was fissured but slightly. A small placenta appeared in a few minutes, and considerable post partum hæmorrhage occurred, uterus acting feebly. Two quarts of a hot intra uterine $^1/_{4000}$ bichloride douche were injeeted, and patient rallied well with but slight rise of pulse and temperature. The case is a novel one from the fact that the membrane felt was certainly mucus and not the amnistic sac, and should also not be classed among those of cervical occlusion or stenosis from endotrachelitis.

Telephonic.—"Is this 257? Oh! doctor, my husband wants to go down to business, but I told him this weather is only fit for beasts! Won't *you* come over and persuade him to stay indoors?"—*Yale Record.*

"Eureka!" cried the young doctor.

"Why, what's the matter, my dear?" asked his wife.

"My fortune is made. If Pasteur and Koch can cure consumption and hydrophobia, why can't I take some Jackass virus and down asininity?"—*New York Herald.*

Book Reviews.

"Massage and Swedish Movements." Their application to various diseases of the body, by Kurre W. Ostrom, from the Royal University of Upsala, Sweden; Instructor in Massage and Swedish movements in the Hospital of the University of Pennsylvania, and the Philadelphia Polyclinic, etc., etc. Illustrated, cloth, 12 mo., pp. 97, price 75 cents. P. Blackiston, Son & Co., 1012 Walnut Street, Philadelphia, Publishers; 1890.

The tendency of modern therapeutics is to cure disease by the application of the laws of hygiene, and in this little work, it is specially shown in an instructive manner, just how Massage and the Swedish Movements are to be applied to all parts of the body, and for what diseases such movements may be relied on as beneficial. This text-book will be a practical and valuable addition to what has already been published on the subject of mechano-therapy.

"Essentials of Pathology and Morbid Anatomy." By C. E. Armand Semple, B. A., M. B. Cantab.; L. S. A., M. R. C. P. London, etc., etc. Cloth, 12 mo., pp. 160, with 46 illustrations. Price, $1.00. Published by W. B. Saunders, Philadelphia.

This compend is intended as an introduction to the subject of pathology and morbid anatomy, and to refresh the memory after a more extensive study. It begins by taking up the discussion of the inflammations and inflammatory processes in the lungs, heart, blood vessels, liver, kidney, stomach, brain and spinal cord. These are all treated in a clear and concise manner, accompanied by several illustrations. Constitutional and septic diseases are also adequately outlined.

"Essentials of Obstetrics, arranged in the form of Questions and Answers." By William Esterly Ashton, M. D., Demonstrator of Clinical Obstetrics, Jefferson Medical College, and Chief of Clinic for Diseases of Women; Member of the Obstetrical Society of Philadelphia, etc., etc. Illustrated, pp. 220. (Fourth Thousand). Cloth, price, $1.00. W. B. Saunders, Publisher, 913 Walnut Street, Philadelphia, 1890.

A most excellent little manual which is intended to assist the student in mastering the essentials of the science and art of obstetrics. Obstetric auscultation and palpation are fully discussed, and cæsarean section is given considerable attention. As a compend it is admirable and fully up with the latest developments in this branch, being one of the best condensations to be had.

"Annual Report of the Supervising Surgeon-General of the Marine Hospital Medical Service of the United States for the year 1890. By John B. Hamilton, M. D., Surgeon-General Marine Hospital Service. Document No. 1373, Treasury Department.

In the year 1890, according to the report of the Marine Hospital Service, nearly fifty-one thousand patients received relief at two hundred different stations. All of the clinical material is carefully studied; cases of interest separately reported, and the results tabulated. There is much valuable information regarding the construction of hospitals in Europe, which are described fully by photographs and drawings. The government support given for the study of disease is through its medical service, and they now have three equipped laboratories for biological and experimental research in this direction. The report shows this branch of the National government in good condition and the whole deserves far more attention than it usually receives at the hands of either the medical or other professions.

"Essentials of Diseases of the Skin, arranged in the form of Questions and Answers." By Henry W. Stelwagon, M. D., Ph. D., Attending Physician to the Philadelphia Dispensary for Skin Diseases. With 74 illustrations. Philadelphia, W. B. Saunders, 1890.

The plan followed by the author in this little work on dermatology is to treat each subject by a series of questions and answers, and in the hands of a competent and conscientious writer there is room for a great deal of valuable information to be imparted. In the treatment of the various diseases, the best and most approved methods are mentioned, and only those which are founded upon the aggregate experience of dermatologists. For the benefit of those who are unable to take advantage of clinics, an appendix containing reference to colored plates of the several American Atlases of Skin Diseases, is added.

"The Physicians' Leisure Library." Intestinal Diseases of Children. By A. Jacobi, M. D, Detroit. Geo. S. Davis, 1890. Paper, 25c; cloth, 50c. Two volumes, of about 140 pages each.

Vol. I. considers the alterations in breast milk, diet of wet-nurses, substitute for breast milk, milk of one cow, raw or boiled milk, condensed milk, other milks, fat, casein, addition of water to cow's milk, admixture of salt, animal admixture, other substitutes, saliva and starch, how to feed, nourishment succeeding the period of infancy, the mouth, the stomach, gastric digestion, gastro-intestinal diseases, dyspepsia, polyphagia boulmia, vomiting, acute gastric catarrh, corrosive gastritis, diphtheritic gastritis, chronic gastric catarrh, hemorrhage from stomach, ulceration of stomach and tumors of stomach.

Vol. II. is given to a consideration of intestinal digestion, meconium and fæces, liver, pancreas, symptomatology of intestinal diseases, colic, constipation, predisposition to diarrhœas, fat diarrhœa, acute intestinal catarrh, chronic intestinal catarrh, follicular enteritis, membranous enteritis, diphtheritic or croupous enteritis, ulceration of intestines, tuberculosis of intestines and mesenteric glands, perityphlitis, paratyphlitis, invagination, intussusception, parasites, worms or helminthiasis, intestinal malformations, hernia, ruptures, inflammation of rectum, or proctitis, dysentery, polypus of rectum, and fissure of the anus.

If every physician would procure this little work and give due attention to the treatment recommended, the mortality among children would certainly be diminished. The writer has had a practical experience of over a third of a century in the treatment of infantile disorders, and this alone should be sufficient to recommend a book that is so replete with timely suggestions to successfully combat the fatal affections that occur in the first year or two of the child.

"Stories of a Country Doctor." By Willis P. King, M. D., Member of the American Medical Association; Member and Ex-President of the Missouri State Medical Association; Assistant-Chief Surgeon of the Missouri Pacific Railway Company, etc., etc. With illustrations by T. A. Fitzgerald. Small octavo. Pp. 397. Kansas City: Hudson-Kimberly Publishing Company. 1890.

A country doctor can boast sometimes of the stories that are contained in this book, which is written by an eminent physician and the anecdotes relate to a life that is incident to the development of our Western civilization. The author is a pleasant writer, with a fund of information that has been told in a way that will make his book an agreeable companion at a winter's fireside.

Western Medical Reporter.
A Monthly Epitome of Medical Progress.

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ORIGINAL ARTICLES.

A Review of Varicocele and Its Treatment.*

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Varicocele in a general way, may be said to be one of the most frequent surgical diseases of the male genito-urinary apparatus. If however we take into consideration only those instances in which the disease is sufficiently marked to demand the attention of the surgeon, the number of cases is greatly reduced. Varicocele is not an intrinsically serious affection, but from certain circumstances peculiar to its location and the importance of the function of the involved part, there is nevertheless a fair proportion of cases in which the patient sooner or later consults the surgeon. There are few diseases of so mild a character *per se* that are capable of causing so much annoyance to the patient as is varicocele.

To be sure the annoyance is more often of a mental than physical character, but to my mind this very fact is a warrant for more careful consideration than is usually accorded it. It is not every patient whom we can convince that the condition is a very trifling matter.

In some cases there are urgent physical reasons for most careful consideration of the disease.

Varicocele consists of a dilatation of, with accompanying structural changes in, the walls of the plexus of veins surrounding the spermatic cord. These changes are the same as those which occur in varix in other situations; the causes being also essentially the same if we exclude masturbation and sexual excesses.

The term varicocele is not very definite, inasmuch as it literally implies a varicose enlargement of the veins in any situation. Etymologically, the inaccuracy of the nomenclature of the special form of varicocity under consideration, is quite evident.

The word varicocele (fr. varix=a dilated vein+*κηλη* =a tumor) is an awkward but convenient hybrid. Cirsocole (incorrectly circocele *κιρσος*=a varix+*κηλη* a tumor), is more elegant and perhaps more correct, but is almost obsolete. Both words from an etymological standpoint signify a varicose swelling in any portion of the body, but clinical usage has restricted them to the scrotal region. Pott suggested the term cirsocele for varicose veins in the scrotum, and varicocele for a similar condition of the veins of the spermatic cord, but at the present day the former term is rarely met with in English medical works or periodicals.

The frequency of varicocele is a matter of some doubt, statistics varying greatly. The wide variation in estimates is doubtless due to the varying interpretation of the term *varicocele* by different observers, and to the varying classes among whom the observations are made. Landouzy, an old French writer, put the proportion of cases at 60 per cent of the adult males.

This is undoubtedly an exaggeration due to the classification of the slighter forms of dilatation of the spermatic veins as varicocele.

Henry found but forty-one cases in nearly two thousand men examined for the New York police force†. This record is however not an accurate criterion of the frequency of varicocele, as applicants for the metropolitan police force are exceptionally vigorous, and by no means the class predisposed to the disease. My own observations, comprising a large number of life insurance examinations, as well as a large number of patients seen in private and dispensary practice, show that not to exceed 5 per cent of male adults have varicocele, of even moderate dimensions. The proportion of cases which are marked enough to cause definite symptoms is even smaller.

Varicocele often tends to diminish with advancing age. M. Horteloup, surgeon to the Bicêtre* found 42 subjects with varicocele among 1,600 individuals, and of these 16 had developed before the age of twenty-five. Of the total number of cases 14 increased, 19 remained stationary, 8 diminished and one entirely disappeared at the age of 45. Of the cases which appeared before the age of 25, eleven increased or remained stationary, four diminished and one disappeared. These figures show that while varicocele does not necessarily progress, an increase is to be anticipated in a fair proportion of cases. The prognosis is rendered more favorable, however, if we consider the class of patients on whom these observations were made. The occupants and out patients of the Bicetré are nearly all engaged in hard manual labor. As Horteloup remarks in connection with the indications for treatment; the surgeon must be guided in his practice by the social status of the patient. Palliation may effectually prevent increase of the varicocle in the wealthier class of patients, yet prove ineffectual among laborers and those subjected to prolonged standing. Vidal has laid especial stress upon this point:

Varicocele is more frequent than varices elsewhere from the fact that there exists not only general but also special causes of venous dilation due to local anatomical conditions. The veins are relatively large, and follow a devious course along the spermatic cord, forming a peculiar plexus (pampiniform) about this structure; the vessels of this plexus frequently anastomose. The valves of these vessels are few in number, very defective and yield to the downward pressure of injected fluid very readily. As compared with the veins in other locations those of the pampiniform plexus are poorly supported by connective tissue which is in this situation sparse, loose and inelastic. The spermatic veins are very long and independently of defective valves, there is a marked tendency to yielding of the illy-supported venous walls, to the weight of the long column of blood which flows so nearly perpendicularly upward. Pressure upon the veins as they traverse the inguinal canal tends to entrance the prospect of varicocele. Strains of the abdominal wall and especially those involved in difficult defecation are likely to bring this about.

*Read in abstract before the Southern Surgical and Gynæcological Association. Atlanta, Ga., Nov. 12, 1890.

*"Du varicocèle et en particulier de la cure radicale de cette affection."

†"The treatment of varicocele, 1889."

*Memoire á l'Acad. inedit.

Varicocele has been a subject of some importance to military surgeons, especially as regards examinations. for enlistment. Landouzy states that of 166,317 men examined in England and Ireland during a series of years, 70.5 per cent were exempted from service on account of varicocele. The Army Medical Reports of Great Britain are quoted as stating that during the years from 1869 to 1873, of 331,568 men examined, 5,312 were rejected for varicocele. Sistach, in 1863, asserted that in France, 11 per 1,000 of candidates were rejected for varicocele. From 1879 to 1883 the proportion had been reduced to 3 per 1000. It is claimed that this reduction was due to improved methods of treatment, but this is probably an exaggerated estimate of surgical progress. Horteloup relates a case that was rejected on account of varicocele, in which the candidate was accepted without comment after a successful operation.

Varicocele is most frequent upon the left side, the reasons advanced therefor being: 1.—The relatively lower position of the left testis. 2.—The relative acuteness of the angle formed by the junction of the left spermatic with the renal vein. 3.—The close proximity of the left spermatic vein to the sigmoid flexure of the colon and its consequent exposure to pressure in constipation. 4.—The absence of a valve in the left spermatic vein at its junction with the renal. 5.—The tendency of men to stand upon the left foot.

It would appear that the relatively greater length of the cord and its attendant vascular structures with the consequent greater weight of the contained column of blood upon the left as compared with the right side, is an all-sufficient explanation.

When varicocele is present on the right side there is almost invariably involvement of the left side also; —indeed, I do not recall a case in which the right side alone was involved. Traumatic causes may, however, give rise to such a condition. The relatively greater frequency of varicocele on the left side was expatiated upon by Celsus, hence there has been plenty of time for an abundant crop of explanations to develop.

The causes of varicocele are several: First and most important is a constitutional lack of tone—this cause is rarely accorded sufficient importance, the tendeney being to seek for exclusively local causes. What is termed congenial or hereditary predisposition to varixin general, consists of an inherent lack of muscular and vascular tonicity. The venous walls are especially weak and flabby, and the circulation sluggish. The same causes that produce laxity of the venous walls produce feeble heart action; there is a deficiency in the *vis a tergo* which is so important in propelling the blood through the veins, and also a deficiency in the aspirating power of the heart and lungs. The association of these conditions with varices of the extremities will on reflection be found to be very familiar. These same patients present a special tendency to hemorrhages on account of vaso motor deficiency, and I have noticed in a general way that the existence of varices of the extremities in patients about to be operated upon, is a note of warning as regards possible annoyance from hemorrhage.

Persons who suffer from such diseases as purpura and scurvy are peculiarly liable to relaxed and dilated conditions of the veins. Strumous individuals also present a tendency to varices.

Varices are apt to occur in persons of indolent habits, because of defective circulation as well as a general lack of tone with resulting vascular flabbiness incidental to insufficient exercise. Such persons, who are compelled to stand at their work for prolonged periods are peculiarly subject to varicose veins. Certain diseases of the heart, liver, lungs, and peritoneal cavity, which produce by pressure retardation of the return flow through the inferior vena cava and iliac veins, favor the development of varix. Long standing portal obstruction is liable to produce varicocele in conjunction with hemorrhoids.

Masturbation, sexual excesses and prolonged venereal excitement without gratification are undoubtedly responsible for varicocele in many instances. I regard it as highly improbable that these causes if brought to play for the first time in a healthy adult, would cause varicocele, but occurring as they usually do when tissue development is really in excess as compared with the inherent resisting power of the various structures, they operate very powerfully in producing congestion and finally dilatation of the spermatic plexus. It will be found that in a large proportion of cases which seem to be attributable to these causes there exists a foundation for the disease in the form of an inherently defective tone of the vascular walls, akin perhaps to that mysterious condition which exists in hæmophilia as far as its hereditary character is concerned.

Inasmuch as it is an established fact that this disease is of an hereditary character and to a great extent dependent upon defective arterial contractility, it is fair to assume that a similarly defective tone of the venous walls may exist. A case has recently come under my observation which illustrates in a forcible manner the association of perverted vascular tone and blood quality with varicocele. An epileptic was referred to me by Dr. S. V. Clevinger for consultation. This man had a very large varicocele which annoyed him greatly, the chief complaint being that the profuse perspiration which bathed the part was almost constantly of a sanguineous character. The patient informed me that his seminal ejaculations were always heavily tinged with blood.

My friend Dr. F. W. McRae, of Atlanta, Ga., has described a similar case to me, in which the scrotal hæmidrosis was quite distinct. These cases are the only examples of this peculiar condition which have come under my observation. As an illustration of the fact that vaso motor aberration existed in my case, I will state that I operated upon the patient for stricture and had a very alarming hemorrhage to deal with, which persisted for several days. From what has been said it is evident that varicocele is usually met with in comparatively feeble subjects. Occasionally from some special cause involving trauma, robust individuals are affected by it. Spencer has advanced the novel theory that varicocele is due to the persistence of fœtal veins which ordinarily undergo complete involution during childhood.

Varicocele has been known to occur from heavy lifting and athletic strain of various kinds. I have seen several cases which were probably of this origin. Keyes describes this variety: Years ago, Percival Pott described what he termed "acute varicocele" due to a combination of fatigue, injury to the part and exposure to cold, the condition being followed by complete atrophy of the testis. These cases were

probably phlebitis of the spermatic plexus which was followed by complete occlusion of their lumen. Orchitis was possibly an attendant condition.

Excessive horseback riding is a fertile source of varicocele—an occasional blow from the pommel of the saddle being a secondary but by no means unimportant consideration. Varicocele from this cause is especially apt to be associated with hemorrhoids. The records of the pension office are very interesting in this connection.

Chronic constipation is regarded by many surgeons as a very fertile source of varicocele; this I accept, providing the constitutional defect already described be associated with it. Constipation alone, I believe to be insufficient to produce varicocele. The pressure of accumulated fæces upon the left spermatic vein tends to retard the return circulation, and if the venous walls be naturally defective, varicocele may result. The pressure of a truss sometimes produces varicocele in conjunction with a hernia; indeed, the pressure of a hernia itself has been alleged to cause varicocele. This is worthy of note, inasmuch as the application of a truss for the cure of varicocele is recommended by several excellent authorities, as will be seen later. It is to be remembered in connection with the etiology of varicocele that constitutional debility may bear the relation to the disease of both cause and effect.

Varicocele occurs with the greatest frequency between the ages of fifteen and thirty-five, this being the period when all the faculties of the body are at their maximum and physical growth is most active; or better, this is the period when there is a degree of growth far in excess of the inherent strength of tissue.

It is at this period also, that perverted sexual habits and hygiene are apt to enter into the daily life of the patient, either in the form of sexual excess, sexual excitement without gratification, or most frequently, masturbation. It is at this age that men are most likely to overtax their strength; then too the effects of exhaustion are most severe, especially near the period of puberty. Varicocele is occasionally met with in young children, and in such cases there is not only a pronounced atonicity of vascular structure in general, but evidences of sexual precocity. In certain rare instances it has been known to occur after middle life, in which event there is a decidedly disproportionate varicocity of the scrotal veins.

The morbid anatomy of varicocele comprises few changes of importance. The pathological changes consist mainly in dilatation and tortuosity of the veins with a coincident loss of elasticity and contractility. There is usually more or less increase in the thickness of the venous walls. This, however, does not make the vessels proportionately stronger because of the fact that the vessels are enormously dilated, and their walls are consequently much thinner in proportion to the bulk and weight of the contained blood than is the case with normal vessels. Not only are the elastic and contractile elements of the vascular walls absorbed in pronounced varicocele, but they are replaced by a low grade of connective or fibro-connective tissue. These conditions enhance the structural weakness. Subacute or chronic inflammatory changes may occur and cause primarily still further thickening, and secondarily a more pronounced degree of degeneration of the vessels. As a consequence of these conditions of innutrition, areas of fatty degeneration may develop.

These degenerated areas explain the occasional occurrence of hæmatocele of the scrotum from slight exciting causes in pronounced varicocele. Acute phlebitis may attack varicocele and prove a serious matter. Vidal de Cassis reported two cases of this kind, one due to a kick and the other to propogation of inflammation from an acute epidymitis. *Plaques* of calcific deposit may be observed in some cases and phleboliths are by no means rare; oftentimes these concretions may be felt from the exterior. The valves of the involved veins are a dead letter as far as their functionating capacity is concerned; so degenerated do they become that they present the appearance of rudimentary valves in other situations.

The testicle of the affected side rarely retains its structural integrity; but becomes softer than normal, shrunken and atrophied; in severe cases it may be difficult to detect amidst the worm like mass of veins. There is of course no method of determining its functional power with any degree of accuracy, excepting where the opposite testicle is out of service, but the physical condition of the organ is a very fair criterion of its physiological activity. The cutaneous, muscular and serous envelopes of the testis participate in the general and local lack of tone, and the veins of the organ proper become dilated and varicose. The scrotum is lax, thinned and pendulous and on section the fibres of the dartos muscle will be found to be sparse and fragile. Elastic tissue is also much scantier than normal.

In general, the cutaneous structure proper, is thinner and more distensible than in its normal condition. The scrotal veins are dilated, tortuous and thinned, their varicocity in some cases being quite remarkable. This condition of the veins is an additional evidence of the general lack of vascular tonicity.

Verneuil describes two cases of erectile venous tumors of the scrotum associated with varicocele, which showed a marked tendency to spontaneous inflammation. Escallier reported two similar cases which spontaneously underwent suppuration, with a fatal result. In most cases the anterior spermatic plexus is alone involved primarily, the posterior plexus however, becoming involved later in many cases. Sometimes it only is involved.

The Symptoms of varicocele are in the main so familiar that their description is only necessary for completeness. They necessarily vary according to the severity of the varix. The first thing to attract the attention of the patient is usually enlargement of the veins, producing as the patient erroneously supposes, a slightly tumorous condition of the testicle. This enlargement is in many cases so slight that it is of no practical importance, and should hardly be designated as a varicocele; its principal effect in such cases being a greater or less disturbance of the morale of the patient. Those individuals who consult the surgeon regarding the slighter forms of varicocele are usually masturbators who have become aware of the possible evil effects of the practice and who, under the stimulus of quack literature are practicing a most rigid introspection and frantically searching for morbid effects of their vicious habits. In their daily inspection of the genitals these patients discover a slight enlargement of one or the other testicle. Possibly at this time their attention is first called to the fact that one testicle hangs lower than the other.

The discovery of this condition in combination with guilty self-consciousness impels the patient to seek relief; only too often he consults the quack, who finds in such patients his richest harvest. Should pollutions or spermatorrhœa be present, then indeed is the quack in clover.

These slight enlargements of the spermatic veins are due to imperfect sexual hygiene with attendant venous congestion. They generally disappear after normal sexual relations have been established, and it is rare for such patients to consult the surgeon after they have once been happily married. Operative interference in these cases is usually unwarrantable. Even in these slight cases, however, there may be neuralgic symptoms of sufficient severity to warrant treatment, both general and local.

Varicocele in its more marked form is readily recognizable. It presents a soft, mushy tumor, which is ordinarily said to resemble a bunch of earth-worms in a sac. This description is very accurate, as every surgeon knows. The veins of the scrotum are very often tortuous and dilated. Varicocele is not supposed to be tender on pressure, but if phlebitis exists or there is severe neuralgia of the testicle and cord, the part is apt to be extremely hyperæsthetic. In the majority of advanced cases the testicle is not only atrophied, but is extremely insensitive to touch or even pressure. Phleboliths may be detected within the veins and may perhaps be the centers of inflammatory changes and consequent tenderness.

The subjective symptoms of varicocele vary greatly; this is especially true of those of a mental character. A case of moderate varicocele in which the mind of the patient has not been disturbed by quack literature or the rigid introspection induced by a knowledge of the evils of masturbation is apt to cause little or no inconvenience. In nearly all well marked cases, however, the conditions are decidedly unfavorable to mental composure and a greater or less degree of physical suffering is almost inevitable. The testicle is an extremely sensitive organ and its nervous supply is so closely associated with the great sympathetic system that diseases affecting its structure might rationally be expected to produce general nervous disturbance as well as pronounced local symptoms. The painful and depressing character of orchitis and epididymitis is sufficient to show that disturbances of the testicle are productive of a disproportionate degree of general disturbance. This is characteristic of all diseases of the sexual apparatus—we all know what serious symptoms may follow a phimosed prepuce or a contracted meatus. If these slight affections produce such affects, how much more likely is varicocele to cause great annoyance from the constant dragging upon so sensitive a structure as the spermatic cord and the incidental congestion of a still more sensitive testicle. I speak of these points more particularly because most surgeons are inclined to believe that all of the symptoms described by the subjects of varicocele, are imaginary. This belief is hardly consistent with our physiological and anatomical knowledge, yet it prevails even among those who would sacrifice an ovary upon the slightest pretext. It might be a good plan for the practitioner to learn more of the reflex and other phenomena dependent upon morbid conditions of the male sexual apparatus, the more especially as the consideration of a method of treatment similar to that advocated indiscriminately in certain quarters, for the female, would save a few bushels of ovaries and appendages. It is safe to say moreover, that not a testicle would be lost.

In the majority of cases of pronounced varicocele a greater or less degree of mental depression and sexual hypochondriasis exists, and in certain instances serve to make life miserable. Vidal has called attention to the fact that suicidal impulses are occasionally observed in the subjects of varicocele. He notes the case of a hospital physician who told him that he had decided to blow his brains out in case he could not be promised a cure. If the tumor be very large and the patient sensitive the physical deformity may cause great annoyance. This was most marked in one of my cases.

Whether as a coincidental effect of a similiar cause or as an effect of the varicocele *per se*, there exists in nearly every case of severe varicocele a decided loss of tone of the sexual apparatus. The symptoms indicative of this are in my estimation often directly dependent upon the varicocele. Pseudo impotence, frequent pollutions and spermatorrhœa are often met with and may persist in spite of treatment until the varicocele has been operated upon. Irritability of the vesical neck, vesical hyperæsthesia or neuralgia—neuralgia of the testes and cord, a painful sense of dragging and weight along the cord, penile or urethral neuralgia, pain in the back and crural neuralgia are quite constant symptoms, the pain in the back being usually the most marked. When the varicocele is very large, the scrotum extremely lax and pendulous and its veins greatly dilated and tortuous, considerable mechanical discomfort may be experienced; as one of my patients expressed it, the tumor "flopped against his legs like a cow's bag." Should the sudoriferous secretion from the relaxed scrotum be excessive, pruritus, intertrigo and often intractable eczema may result. I have a patient at the present time who has a most obstinate and almost intolerable eczema due to a very large varicocele. The ordinary remedies having proven ineffectual, but as the patient has no appetite for surgical operations my sympathies are necessarily reduced to a minimum. The cutaneous irritation incidental to varicocele was long ago mentioned by Landouzy as an indication for operation as he expressed it, "the continual moisture sometimes produces a perfectly unbearable irritation of the skin." The dermatitis incidental to varicocele is obviously due in some measure to friction which is unavoidable.

Wickham calls attention to violent gastralgia (?) chlorosis and marked malnutrition as results of varicocele.

In recounting the symptoms incidental to large varicoceles I do not wish to appear arbitrary, as the pain and other uncomfortable symptoms are not necessarily proportionate to the severity of the disease. In some cases of slight varicocele the patient is profoundly depressed and complains greatly of reflex pains in the back, thighs and testes with associated marked hypochondriasis. In other cases a large varicocele may produce no discomfort whatever, save that which is incidental to its size and the consequent mechanical inconvenience; consisting chiefly in impeded locomotion. Much depends on the sexual hygiene of the patient. If this be normal, his symptoms are apt to be comparatively slight. The relief of congestion incidental to sexual congress, was long ago noted as beneficial to varicocele.* Wickham,

* Landouzy op. cit.

however reports a case in which all the symptoms were aggravated for some days, by each act of coition.†

An important point in the consideration of varicocele is *the danger of scrotal hæmatocele.* The friable, degenerated vessels are liable to rupture under falls, blows or strains. One case of hæmatocele from injury of a varicocele, has come under my own observation. Vidal reported two cases of this kind. That the diseased veins may rupture spontaneously has been asserted, but I regard this accident as highly improbable, although perhaps not impossible. Escallier's cases of spontaneous (?) phlebitis already quoted are important in this connection.

Atrophy of the testicle, already alluded to, is an inevitable result sooner or later, in severe varicocele. This is an important consideration, as the sound testicle may become diseased independently of the varix, and lose its functional power. This I regard as one of the prime indications for surgical interference in large varicoceles.

That varicocele affects the structural integrity of the testes has been observed by such writers as Curling, Cooper, Barwell, Pott and Humphrey. Numerous French writers, notably Gosselin and Wickham, have asserted that the function of the testicle is impaired. One of Gosselin's observations is very striking. In a case of marked varicocele on the left side, the patient developed an epididymitis in the opposite testicle. Microscopical examination of the semen showed the complete absence of spermatozoa. This point is well worthy of serious consideration, for under certain circumstances an operation. producing as it does, improvement in the nutrition and function of the testes, would be warranted by this indication alone.

There is one practical point which, so far as I know, has not been noted by surgical authorities: I refer to the predisposition to hernia existing in the subjects of varicocele. I have observed quite a number of cases in which hernia followed a slight strain in adults who had long been affected by varicocele. It is admitted that the same constitutional weakness and local structural imperfection that predisposes to varicocele favors the occurrence of hernia, but it has seemed to me that the varicocele *per se* had a direct mechanical influence in favoring the escape of the abdominal contents. The continual dragging of the varicocele upon the structures traversing the inguinal rings and canal must necessarily enlarge these structures and thus weaken the abdominal walls at this point. The relaxed condition of the scrotal tissues is also a favoring element in the causation of hernia. The hernia is obviously most apt to occur upon the side of the varicocele, but in some instances the opposite side is affected. Here the causal influence of the varix *per se* is not easily demonstrable, but scrotal relaxation and dragging doubtless have some effect.

(*To be Continued.*)

† These de Paris.

How Are We to Promote the Success of Medical Societies?

We are now brought face to face with the all too troublesome problem which has agitated the minds of the medical fraternity ever since medical societies were instituted and perhaps it is sheer folly for us to attempt to solve such a complex question but a desire to see our fraternity placed upon a loftier eminence than it has heretofore assumed prompts us to assail the topic in the hope that our own modest suggestions may be productive of fruitful results. Taking a retrospective view of the records of medical societies in general we find that comparatively few have been notably successful in achieving the objects of their organization, and we note further that those that have been most successful are those that have allowed the social features to assume the initiative interlarding the proceedings with the results of their scientific investigations in the various fields of research thus breaking the tedium of an otherwise uneventful meeting. We need go no further than the South to demonstrate the truthfulness of this statement. Glancing at the Southern medical societies we find that the social features are made preeminent and that dogmatism and denunciation are foreign to them. If any differences arise they are settled without their societies. We could likewise accomplish the most good by congregating on a social platform, and exchangeing, listening, weighing and considering ideas, and discussing the opinions honestly entertained by others, and if we could but force ourselves to the conclusion that each member could learn something from another and that no one man constitutes the "summum bonum" of intelligence we would soon find that harmony and peace would become the motto of our medical societies. The question of ethics enters so largely into the make up of our societies and constitutes such a delicate question withal that we hesitate long ere broaching the subject but necessity compels us to propound the question. What is meant by the term Ethics? A response to this question is difficult to find, for the reason that what is deemed ethical by one individual may be looked upon as highly unethical by another. Heretofore, however, it has always been understood that to be ethical in the medical profession implied simply living up to the code of ethics as provided by the American medical association; but alas! how few of us can lay claim to such exquisite perfection and heavenly tendencies. Why, it has even been a mooted question for some time past, whether those most active in formulating the code can justly lay claim to its protection. However it would seem that we should allow the dictates of our own gentlemanly tendencies to govern us in all social relations whether they be medical or otherwise. The great mistake that medical men in general make is that they will not see as much truth and reason in the views of those who are disposed to oppose them, as in their own teachings, whether this arises from prejudice can of course only be surmised, but that it constitutes an active factor in the many disturbances created in medical circles cannot be denied.

In order that it cannot be truthfully stated of us as Carlyle puts it, "Doctors like the masses of mankind, keep down in the valley of knowledge, only a few climb up the highlands and see the race march with true science," it might be well for us to emulate the example of the British Medical Association which was organized in 1832 by 310 physicians and now through the medium of branch associations extends its influence to all parts of three kingdoms, numbering many thousands in its membership, and though the annual fee is but five dollars the yearly income reaches into the thousands. And behold! What benefits accrue to the profession and to the public?

It has promoted friendly intercourse thereby cementing the fraternity into one common mass or society of friends and brothers. It has established a wonderful control over medical ethics and gained thereby a loftier standard of professional etiquette thus enhancing both its social and political influence. It has encouraged scientific debate thus attaining greater accuracy in clinical and scientific researches and by means of its annual appropriation it has stimulated actively the efforts of the profession in original work, thereby blessing humanity and abetting medical science. In 1883 the official organ, the British Medical Journal, was instituted and its standard materially advanced in 1866, since which time the membership has rapidly and continually increased. And though the benefits which accrued to the profession have been great indeed, they sink into utter insignificance as compared with those conferred upon the public, and so might we in a humbler and more modest manner establish our right to a position among original thinkers and promulgators of the medical sciences, while at the same time the public would be forced to recognize our efforts in its behalf, and appreciate the good which would ensue as a result of a more advanced sanitary and hygienic condition of our cities.—*Dr. J. A. Lydston, in Denver Medical Times.*

The Treatment of Acute Urethritis.*

By Gardner W. Allen, M. D.

Surgeon in the Genito-Urinary Department, Boston Dispensary.

I have no new contribution to genito-urinary therapeutics to offer, but merely wish to make a few general observations on the treatment of acute urethritis in the male, based on my own experience.

The internal treatment is of some importance. The value of copaiba, I think, is apt to be underestimated, and, because it is disagreeable to take, some physicians discard it from their formulary. Many persons take it well, and it undoubtedly has a marked influence on the disease in a large proportion of cases. Where internal treatment is indicated, copaiba should be considered, but, of course, must be stopped when found to produce gastric or intestinal disturbance, or a cutaneous eruption. Sandalwood oil is perhaps even more efficient and is less nauseating. It is expensive, however, and most preparations of it are unreliable. Its action on the kidneys should be looked out for. My experience with salol is small and somewhat disappointing, as far as it goes.

For diuretics, acetate of potassium and liquor potassæ are perhaps as good as any. The latter combined with compound tincture of cardamom makes an agreeable preparation, but where there is severe pain on micturition, it works better if given with hyoscyamus.

Local treatment, however, is the most effectual, and although many advise the postponement of injections until the third week or later, it seems to me that the sooner we begin with them the better. If we are to use simple astringent injections it may be well to wait until all acute symptoms have subsided, but I think the time has come when we should consider the question whether it is not better to eliminate simple astringents from the routine treatment of gonorrhœa. They are doubtless useful in certain cases and should not be wholly neglected, but it seems to me that we now have more reliable agents, namely, antiseptics, which should always be used when practicable, beginning the treatment as early as possible. In cases of extremely intense inflammation or of phimosis with long œdematous prepuce we must, of course, defer the use of injections until a more favorable opportunity presents itself.

For injecting the urethra it would seem hardly necessary, now, to speak of the importance of using a large syringe, holding about half an ounce of fluid and having a blunt point, yet the small sharp-pointed syringes still seem to be the favorites with most patients and many physicians. It will be found of advantage to carefully instruct patients in the use of the syringe.

Among the substances supposed to have antiseptic properties, that I have used for injections are hydronaphthol, sulphate of thallin, peroxide of hydrogen and pyoktanin, which have been on the whole rather disappointing, seeming to have few, if any, advantages over old-fashioned remedies. Permanganate of potassium and nitrate of silver make useful injections. The former is comparatively unirritating, but the latter should be largely diluted in the acute stage, a solution not stronger than from 1-4000 to 1-2000 being used. Corrosive sublimate, according to my experience, is more reliable. As an injection, in solutions of 1-8000 or 1-10000, or even weaker when irritating, it may, I believe, generally be depended upon, if not to limit the duration of the disease, at least to reduce the discharge to a thin, milky oozing from the meatus, devoid of the most disagreeable and painful symptoms.

The best results in the use of corrosive sublimate, however, are to be obtained from irrigating the urethra with a hot solution of this substance. The strength of the solution should be from 1-40000 to 1-10000. The latter is too irritating for most cases, but many patients bear 1-20000 very well, and 1-30000 is strong enough to be effective. The irrigation may be carried out by means of a fountain syringe, syphon or any other more convenient arrangement, and the solution introduced into the urethra through a soft catheter or other irrigator passed down to the bulbous portion, or through a blunt nozzle, with either a single or double current, held at the meatus. I have generally used and preferred a simple, blunt-pointed glass nozzle. Adjusting it so that the lips of the meatus fit snugly about the tip the current is turned on. As soon as the urethra seems to be fully distended, the nozzle is very slightly removed, allowing the fluid to escape, and immediately replaced. By alternately filling and partially emptying the urethra, it is thoroughly washed out, and by distending it with the fluid all the folds of the mucous membrane are laid open. I have not found this operation painful when carefully and cautiously done, sudden and violent distension of the canal being avoided. Many surgeons, however, prefer retrojection through a catheter; this is probably quite as effective, and, if the passage of the catheter is not painful, it is open to no objection. The danger in carrying gonococci into the deep urethra, even beyond the sphincter, either on the end of the catheter in retrojection, or by the force of the current in simple irrigation is probably slight, for any microörganisms would be rapidly destroyed by the solution. The chief objection to corrosive sublimate

*Read at Meeting of the Surgical Section of the Suffolk District Medical Society, March 4, 1891.

is that it is irritating. Micturition is apt to be painful during treatment. The meatus sometimes becomes very sensitive, requiring the use of cocaine in order to continue the irrigation.

To obtain the best results irrigation should be repeated two or three times a day, but this is generally impracticable. It should at any rate be done as often as possible while there is hope of aborting the disease. During the intervals and after the irrigation has been discontinued, ordinary injections of corrosive sublimate in somewhat stronger solution, say 1-8000 or 1-10000 may be used by the patient. Or, what is still better, he may use an instrument called the universal injector, which is described by Prof. Keyes in his book. It is a hollow rubber ball, holding an ounce and a half, with a blunt nozzle on one side. It makes a good substitute for the irrigation apparatus.

Notwithstanding all that can be said, however, in favor of this treatment, we cannot, I think, feel at all confident of really cutting short the disease unless we see the case very early, that is, within twenty-four hours or perhaps within twelve hours of the very first symptom noticed by the patient. In a few cases I have succeeded in obtaining very satisfactory results. Unfortunately none of them were first attacks, but each had a purulent discharge coming on after a regular period of incubation of from three to five days. In the cases in which the discharge was examined it was found to contain gonococci. The disease was apparently aborted in these cases within a week, and did not recur.

Of course, a few isolated cases like the above do not prove much, but the results were satisfactory to the patients and to me, and I think indicate in a general way, that the antiseptic treatment is the best. For every such quick result as this there will be a number that, as I said before, if not aborted, will at least be so modified that the disease will run its course in a mild, subacute form, causing comparatively little inconvenience to the patient, and less liable to be associated with the painful and sometimes serious complications that often accompany the disease.—*Boston Medical and Surgical Journal.*

Medical Societies.

It is scarcely necessary to itemize the various kinds of medical societies throughout the country but in a discussion of the objects of such organizations it will be well to enumerate and classify them under the following headings, and beginning at the bottom of the ladder we ascend as follows:—(1) Local or County, (2) State, (3) National, (4) International Medical Societies.

The local or county society is the outcome of the apparent necessities of individual members of the medical fraternity who feel it incumbent upon them as representatives of their noble profession, to band themselves together for the purpose of giving voice to their clinical experience and protecting the fraternity at large as well as the public from the glittering imposition of the quack, and woe be unto him whom they suspect of such tendencies, unfortunately for the societies, however, it often happens that there creeps into their ranks a class of inferior men who, regarding themselves as the salt of the earth but are not so regarded by the rest of the community, disdain to extend to aliens the hand of good fellowship, or perhaps in certain instances aliens are not disposed to unite forces with them for certain unethical reasons and as a consequence, ye glorious society whose primal objects were sociological ethical and scientific is compelled to move along in perpetual discord failing to appreciate the many advantages sought, and thus while flattering itself that it has pointed the finger of scorn at the attempted usurper and that he has been effectually disposed of, the fact of their utter failure to accomplish their aim stands glaringly before them, while the poor unfortunate would-be brother exclaims in the words of Catiline: "Banished! I thank you, for it breaks my chain! I held some slight allegiance till this hour; but now my sword's my own! Smile on, my Lords!" And so he goes but not to leap the gulf alone for many others have gone that way before and reviewing the medical ranks of the city of Denver will betray the effects. What does it teach us? We find that out of the three hundred physicians in Denver about one-half of them are considered sufficiently ethical to become members of the local society and less than 50 of these are in good standing. What further? That out of a possible 150 about 10 or 12 on an average are deeply enough interested in the proceedings to attend the regular meetings of the society and even they are disposed to straggle in one at a time. What is the result? Some member of the society eminently capable in the profession is down for a paper, and one or two others to open the discussion. The principal actor in the drama appears, and reads his paper which may be deeply interesting, the gentleman who is open the discussion is next called. He appeareth not; and were it not for the presence of some one else who is interested in the topic, the paper which no doubt required great thought and mental effort in its preparation goes by the board without comment. Interesting is it not?

Now imagine the author's feelings! Invited to read a paper before the society, and after careful effort he presents his views on the assigned topic and finds that it meets no discussion. What must be his conclusions? Either that the paper is unworthy of discussion, or that the society is incapable of grasping its meaning, and he goes away deeply grieved and dissatisfied. And yet we expect our medical societies to become successful, even under such disastrous auspices, but it cannot be! And it may be said that no society, be it medical or otherwise, will ever succeed unless greater interest is displayed by its members, and good fellowship held as the password. Fortunate indeed is the fact that our State, National and International societies find within their ranks no such petty jealousies as are constantly springing up in our local organizations. Why? Simply because they are mastered by members from parts remote from the point of congregation, and no possible excuse is afforded for an exhibition of selfishness such as obtains in our local societies, and then, too, the officers may be men of broader intellectual scope, and being compelled to exchange ideas with professional gentlemen of like caliber, they are stimulated to greater efforts and nobler purposes, and even in their case we find that there are certain objectionable features that creep in to mar the harmony and peace and militate against the perfect attainment of the purposes of their order which likewise can be comprised under the three grand head-

ings—Sociological, Ethical and Scientific. The same difference of progression is noticeable the Local, State, National and International societies as is found in the human family—the higher we go in the scale of life the more perfect becomes the organization. The foregoing remarks are applicable to all medical societies, but it is certainly to be hoped that in the near future a different state of affairs may be instituted so that those of us who have reached the topmost summit of medical science and constitute by this right a part of the famous One Hundred, whose ideas are ever perfect and whose angelic wisdom illuminates the entire horizon of medical knowledge, shall not arrogate to ourselves the right to hang hissing at the humbler and perchance nobler men below. And in medical societies whose aims are inevitably to enhance our knowledge of bacteriology, surgery, chemistry, physiology, anatomy, therapeutics, pathology, etc., etc., we certainly need all of the best available material, and if we but act upon the principle of extending the right hand of fellowship to our aspiring brethren who desire to enjoy a part of the honors belonging to ourselves we certainly will establish our right to a place among men, and feel ourselves ennobled by so doing.—*Dr. J. A. Lydston, in Denver Medical Times.*

The following poetic effusion by a well-known Philadelphia physician was read at Baltimore, Jan. 7, 1891, on the occasion of the meeting of the Flint Club of that city.

E PARVO MULTUM.

The Tragical and Lamentable Fate of an Errant Bacillus Kochii: An Hysterico-Biographical, Laboratorious and Epical Episode done into Poetry of the Present Day.

BY KATISHA KATZENJAMMER,
Of the Bacteriological Institute, etc.
[Translated from the Japanese.]

A little spore in a culture grew,
Listen to my tale of woe!
Imbedded in a mass of glue,
Till a full-fledged bacillus it sprang into view.
Listen to my tale of woe!
Now, day by day, its ambition grew;
Listen to my tale of woe!
Like the witch in Macbeth, who made the stew,
It said to itself, "I'll do! I'll do!"
Listen to my tale of woe!

CHORUS (at discretion).

It saw its chance in a day or two;
Listen to my tale of woe!
A draught of wind through the laboratory blew,
And out of the window the bacillus flew.
Listen to my tale of woe!
In a neighboring orchard a little peach grew;
Listen to my tale of woe!
The little bacillus came there too,
And Johnny Jones and his sister Sue.
Listen to my tale of woe!

CHORUS (at discretion).

Now, they ate the peach of the emerald hue,
Listen to my tale of woe!
And swallowed the little bacillus too,
Which well in life its mission knew.
Listen to my tale of woe!
Now, the doctor was called to attend them two,
Listen to my tale of woe!
Who took from his pocket his microscope true,
And brought the bacillus into view.
Listen to my tale of woe!

CHORUS (at discretion).

He said, "Here's the cause of this cry and hue,"
Listen to my tale of woe!
For the comma-bacillus well he knew;
And he stained it red and he stained it blue.
Listen to my tale of woe!
In Johnny's corpse was a peach-stone or two,
Listen to my tale of woe!
In Susie's abdomen a little glue;
"Ah! here is infection and zymosis too,
'Tis sad to say; Boo-hoo! Boo-hoo!"
Listen to my tale of woe!

CHORUS (at discretion).

Now all kind friends my advice to you,
Listen to my tale of woe!
Is when you are walking with a maiden true,
Avoid the peach of emerald hue;
Listen to my tale of woe!
And if, like Adam, you are tempted too,
Listen to my tale of woe!
Remember the fate of John and Sue,
Who ate the peach of emerald hue,
And the wicked bacillus that got stained blue,
Listen to my tale of woe!

CHORUS.

Hard trials for them two,
Johnny Jones and his sister Sue,
And the peach of emerald hue,
Also the comma-bacillus too,
Listen to my tale of woe!

Items of Interest.

It is said that deaf mutes are never sea-sick.

There are in Russia 12,521 physicians, 409 of whom are women.

The Chicago Medical College will expend $100,000 in rebuilding.

Ginseng valued medicinally by the Chinese, costs over $200 an ounce.

There are nine medical schools in Mexico, the course of study in each being six years.

The Common Council of Cincinnati has adopted an ordinance making public exhibitions of hypnotism misdemeanors.

Sir Andrew Clark, of London, said: "I worked twelve years for bread, twelve for butter, and twelve more for the luxuries of life.

One drop of oil peppermint placed under a bell jar covering a cultivation of cholera bacilli, will kill both bacilli and spores in forty-eight hours.

Pumping the liver or massage in the treatment of gall-stones, is advocated and has been successfully carried out in a case, related by a physician in the *Virginia Medical Monthly.*

Mrs. Frank Alcorn, of Guthrie, O. T., purchased some oil of wormwood at a drug store and gave an overdose to her three children with fatal effects. The clerk failed to label the bottle "poison."

Of twenty-six patients who were bitten by a mad wolf and afterward inoculated by M. Pasteur, five died in Paris, and four more who had been treated with apparent success, died of hydrophobia immediately after their return to Russia.

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

Subscription, $1.00 a year; to Europe, $1.25.

Entered at Chicago post office as second-class matter.

THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

Notes of The Recent Meeting of the American Medical Association.

The recent meeting of the American Medical Association was on the whole a positive success, socially and scientifically. The entertainments provided for the occasion were excellent and greatly appreciated. As usual, the local physicians failed to appear in any number. Apropos of this, while conversing with half a dozen prominent medical men in attendance at the meeting, we suggested that a computation be made of the number of Washington physicians with whom the entire party had become acquainted during the session. The sum total was four. This is not as it should be; the members of the local profession at the various places of meeting should vie with each other in making the acquaintance of visiting members. Another point: A ladies' committee should be organized for the entertainment of visiting ladies. Delegates who bring their wives are compelled either to neglect them or to lose the meetings of the sections.

There was the usual amount of medical politics. It is a great pity that half the time which should be devoted to science is occupied by medico-political buncombe. But the old wheel-horses, like the "parients" of American medicine, must be placated, and as they cannot talk anything but medical politics, they must have time to do it in. The time will come when all the detailed work will be done by committees. The handwriting is on the wall, so let the medical politician make most of his opportunity. If the association would do good work and plenty of it, let it pattern after the Mississippi Valley Medical Association—the banner society of this country.

It would be well if a committee could be appointed to pass upon the papers presented to the several sections. Much time and much valuable space in the journal is wasted upon slush, verbiage and compilations, that should adorn the waste basket. Imagine a long-winded address upon the immorality of the use of alcohol in medicine. It is to be remarked that this question is about to receive the *coup de grace*. The "American Medical Temperance Association" has been organized for the purpose of settling the argument relative to the use of alcohol in medicine. The constitution of the new society demands a fair and impartial hearing of the scientific evidence pro and con. That the treatment of the question will be unbiased, is evidenced by the nomenclature of the new association.

The discussions in the Surgical and Gynæcological sections were of especial value. The question of surgical treatment *vs.* electrolysis in uterine fibroids, was vigorously handled in the latter section. One could but be impressed by the outspoken and conscientious expressions of a distinguished surgeon of Philadelphia, upon this subject. If the callow and ascetic Western gynæcologist had only brought an India-rubber woman with a copper uterus with him, he could probably have demonstrated the fallacy of the views entertained by the distinguished gentleman aforesaid. But as the sexual freak referred to had recently had her uterus electrolyted into nothingness by an ampere of current, she couldn't be expected to appear in behalf of the electro-therapeutical specialist.

A word regarding special rates on railroads for the benefit of delegates. Physicians should remember that delegates' tickets are not good on the limited trains. The circular mailed to Chicago doctors in behalf of the Pennsylvania R. R., plainly stated that the limited express was open to delegates by payment of extra fare of $2.50. This it seems held good only to Washington, the delegate tickets being refused for the return trip. This little scheme should be remembered. Personally we experienced great annoyance through what appears to have been misrepresentation on the part of the railroad officials.

Inflammation About the Head of the Colon.

The enormous progress which has been made by surgery of recent years is no where more marked than in the diagnosis and treatment of this class of affections, and the subject is so important that we feel that too much cannot be said about it. It is probable that inflammation of the cellular tissue is not the *fons et origo mali* of the inflammatory affections which occur about the head of the colon. It might be said that the cellulitis which occurs in this region bears nearly the same relation to the pathological foundation of the process that pelvic cellulitis, so called, bears to pathological conditions of the uterine appendages. We would, however, assign a little more importance to the part which the cellular tissue plays in the pathological conditions incidental to appendicitis. There appears to be no question that in many cases inflammation of the extraperitoneal cellular tissue, *i. e.* Velpeau's membrane has much to do with the peculiarities of some perityphlitic abscesses. This is especially true in retro-cæcal abscess. We do not think that the inflammation and abscess are always intraperitoneal. Leaving out of consideration a few recent anatomical dissections there is no doubt that in some instances the inflammation may agglutinate the peritoneum about the appendix and perforate into the retroperitoneal tissue.

This is the explanation in our opinion of the slowness with which some abscesses in this location come to the surface. Instead of the induration being at once manifest it may be several days or weeks before it can be detected, the abscess meanwhile burrows along the plains of cellular tissue in the iliac fossa to the ileo-lumber region and may appear at some distance from the head of the colon, or may gradually burrow outward toward the loin and downward and upward in the direction of the groin until at one or both points it becomes perceptible to the touch. In quite a little experience in this class of cases we have observed cases of this type and in one instance in which we operated we are confident that the process was extraperitoneal and that the abscess had burrowed upward in the direction of the kidney as well as downward into the iliac fossa. Another point that must be considered is this, that if all these abscesses

are held to be primarily intraperitoneal, the operator may lose sight of the fact that he can do what is practically, an extraperitoneal operation, for there is at least a barrier produced by adhesions between the collection of pus and the general abdominal cavity.

We believe that some of these cases are due to inflammation which does not begin in the appendix but begins in the colon proper—this inflammation may extend to the cellular tissue outside of the colon without the occurrence of perforation. The same is true in cases in which the inflammation primarily or secondarily affects the appendix. The question of the relation of foreign bodies to this process, seems to us quite definitely settled. The foreign body, however, is not necessarily of extraneous origin. Very frequently as a consequence of constipation catarrhal colitis is set up, this extends to the appendix and there is slight swelling of the appendico-cæcal opening. Mucus collects in the appendix, a small amount of fæcal matter gets into the little tube during straining at stool but fails to get out again, and forms in combination with the mucus, a small fecal stone. Sometimes this fecal stone is formed in the cæcum and is forced into the appendix, most often, however, it forms in the appendix proper. This stone may now set up inflammation in and about the appendix or may perforate and in that way cause inflammation and suppuration. Sometimes perforation occurs, the fecal stone escapes into the pus and becomes dissolved. This we believe to be the explanation of those cases in which perforative ulceration of the appendix is found, and yet no foreign body is discernible in the pus sac, and we believe that in every case of perforation there has been a foreign body of some kind. In general the causes of perityphlitis may be said to be

1. Fecal impaction in the colon.
2. Fecal stone.
3. Extension of catarrhal colitis with occlusion of the mouth of the appendix.
4. Foreign bodies of extraneous origin.
5. Traumatism.

The latter may be disputed but we have seen several cases that gave color to this opinion. Many cases of appendicitis remain catarrhal. The frequency of catarrhal appendicitis is well shown by Fitz in his analysis of 72 cases. The diagnosis of perityphlitic abscess is not always easy. We recall one case in which we stood ready to operate, the symptoms pointing clearly to the presence of pus, and the fullness of the ileo-cæcal region and tenderness of that region seeming to warrant an operation. Operation was, however, refused, and the patient recovered after passing a large amount of fæces. Fitz reports a case of circumscribed peritonitis in the right iliac region, which was afterward proven to be on autopsy abscess of the liver due to catarrhal colitis. In a second case diagnosed as appendicitis post-mortem disclosed a suppurating subperitoneal gland due to gonorrhœal infection. In a third case pyosulpinx was mistaken for appendicitis. In a case of our own appendicitis existed with a small abscess, but all of the symptoms which existed prior to the operation have since persisted, and are due unquestionably to spinal irritation. This case was not operated on by us.

The mortality rate reported from operations for perityphlitic abscess, should not guide us in the question of operation, as these cases are usually operated on very late. The results of surgical treatment depend a great deal upon what is done. For example the operation may be, 1. Extraperitoneal. 2. Intraperitoneal. 3. The appendix may be resected. 4. The operation may be no more formidable than the lancing of an abscess.

We know of cases in which all the operator did was simply to hurry nature a little. A valuable point in diagnosis is the fact that when an abscess forms behind the cæcum and tends to burrow upward toward the kidney, there will be marked irritation of the psoas muscle, marked flexion of the thigh, crural neuralgia, and great pain on attempting to straighten the limb. As for aspiration, it can only be condemned. If pus has not formed the abscess does not need aspirating, and after it has been formed aspiration does no good. It is dangerous, and is as logical as the performance of the ostrich who seeks safety by sticking his head in the sand. Fecal fistula has occurred in one of our cases after operation which was delayed too long. The fistula, however, healed within three weeks.

The most important point in connection with perityphlitic inflammation in our opinion is this—that many children who are said to have idiopathic peritonitis, have really had inflammation about the appendix. In children, however, the inflammation extends to the sensitive peritoneum so rapidly that a fulminant peritonitis results and destroys the little patient's life long before the period when in the adult suppuration and a distinct tumor would be observed. We wish to put ourselves on record as denying the existence of any such thing as idiopathic peritonitis in children. All such cases are due either to some disease of the bowels of which appendicitis is the most frequent condition, or to traumatism.

Operation should be the rule in perityphlitic inflammations. It is well to remember, however, that a proper selection of cases is as essential here as elsewhere. Not all cases require operation but whenever pain, induration, high pulse and temperature tend to persist the operation should be done at once. Whenever the induration is marked it should be done without delay.

The chief difficulty in arriving at definite conclusions regarding the treatment of perityphlitic inflammations is the dogmatic assertions of the belly-cut routinists on the one hand, and the touch-me-not policy of the expectant ignoramus bigot or conservatist on the other. G. F. L.

The Treatment of Gangrenous Diseases.

It is hardly necessary to call attention to the necessity for etiological differentiation in selecting a method of treatment for gangrenous processes of various kinds. Those forms of gangrene due to the direct effects of injury upon the tissues—to destruction of nutrition of the parts are very familiar. Then we have those indirect results of traumatism—those consequent upon injury of the blood vessels, cutting off nutrition. We have idiopathic forms of gangrene, or idiopathic forms of vascular obstruction, producing gangrene—endarteritis deformans as we used to call it, and vascular obstruction due to embolism and thrombosis. Carrying the question of idiopathic destruction of vitality a little further, we find some very peculiar cases. We made some interesting observa-

tions during the last epidemic of typhus fever in N. Y. City. We saw a number of cases in which gangrene of the toes, nose, ears and cheeks occurred as a consequence of the trophic effect of the poison of typhus. Then we have specific forms of gangrene due to erysipelas, anthrax, charbon, forms due to syphilis, chancroid and that ultra specific form known as hospital gangrene. A variety due to nervous disturbance with resultant failure of nutrition is seen in Reynaud's disease. Obviously the lines of treatment should not be the same in all the various conditions.

One of the most recent remedies suggested for gangrene is the solution of sulphate of zinc, recommended by Dr. Bedford Brown, of Alexandria, Va. We have faith in the antiseptic qualities of the zinc, but we think that it has certain other qualities which would defeat some of the objects aimed at. The indication being to limit the progression of the necrotic process, to prevent sloughing, it is possible that the zinc solution might, by virtue of its astringent properties, inhibit blood supply and retard the separation of the sloughs. Bromine is a very valuable remedy in the gangrenous processes. It was first introduced by Dr. Frank H. Hamilton, in hospital gangrene. We have used it in all the forms of sloughing, gangrene and phagedena incidental to the local venereal diseases, also in the tissue necrosis of certain syphilitic lesions, with excellent results. An excellent application to check gangrene of a specific character is the old Ricord's paste, of sulphuric acid and charcoal.

At the New York Charity Hospital it was a favorite application. We remember one case of phagedenic bubo in which its effects were very striking and beneficial. The case resembled an illustration after Jullien in Van Buren and Keye's work on venereal diseases. In this case the bubo became infected in some way, began sloughing and rapidly progressed until it destroyed the abdominal muscles for a considerable depth up to the level of the umbilicus. In that case the paste was used freely and succeeded in checking the process.

The most reliable remedy in gangrene is moist heat. An excellent way to apply it is in the form of the ancient charcoal and yeast poultice. A small amount of linseed meal should be added and the whole may be sprinkled with a dilute solution of chlorinated soda. There is nothing better than this application to keep the parts clean or sweet, favor separation of sloughs, and limit the destruction of tissue. Alcohol in these cases is well borne. Our instructions to nurses in attendance upon some of these cases has been to give the patient all the liquor he could stand in the form of punches or eggnog without getting him actually drunk. The use of large doses of the tincture of the chloride of iron as frequently recommended for gangrenous and septic affections, we believe to be pernicious by disturbing digestion, constipating and offering no compensatory advantages. The salicylate of iron as recommended some years ago by Mr. Walls White in the British Practitioner, is a very desirable substitute for the chloride. It has all of its advantages and none of its faults. No disease is more frequently followed by gangrenous processes than the cellular and phlegmonous forms of erysipelas. Suppuration and sloughing under ordinary methods of treatment are the rule. In a large hospital experience we have learned that the time to treat sloughing and gangrene is before they begin. If free multiple incisions be made through the skin and cellular tissue of the parts affected by cellulitis, suppuration and sloughing will be the exception and not the rule. In our experience sloughing, septic infection and death have been infrequent in direct proportion to the liberality with which we have used the knife. The incisions relieve tension and afford a certain degree of local depletion which is essential to the recovery of the part. The tension in these cases is the chief cause of the sloughing and suppuration. Hot antiseptic and anodyne lotions should be used after the incisions have been made; a favorite application of ours being antiseptic gauze or jute saturated in hot bichloride or boracic lotion. G. F. L.

Chicago can boast of another medical journal to be published monthly under the name of *The Alkaloid*, and edited by Louis J. Mitchell, M. D., the first number of which has reached us.

In his editorial he says, "At this time and day progressive physicians throughout the land are seeking new and reliable additions to their therapeutic *armamentarium*. They will find none that can be exhibited more accurately and will afford more satisfaction after such exhibition, than the concentrated medicaments. There is a general awakening and inquiry among the profession for information regarding their use, and it is to fill this requirement that *The Alkaloid* has been started."

The above states briefly the scope of the new journal. We wish the publication a successful career, and hope to see it each month on the editorial desk.

Amputations in the Light of Prothetical Science.

An able and scientific paper on the above subject was presented to the National Association of Railway Surgeons, at the recent meeting in Buffalo, by Mr. Chas. Truax, the well-known surgical instrument maker, of Chicago. In this paper amputations at the ankle joint or through the tarsus are condemned, or rather, unfavorably contrasted with amputations above the joint, as regards the subsequent facility of adaptation of artificial limbs. Attention is called to the destruction of the arch of the foot in the instep operations, and to the tendency of the tendo achillis to draw the cicatrix into a position of painful pressure, and to the difficulty of applying a suitable artificial member. There is food for reflection in this article. Inasmuch as in either amputation an artificial limb must subsequently be depended upon, and the facility of its adaptation is greater in stumps above the ankle, the choice should favor the latter, unless there are certain circumstances of danger to life involved in the high operation. Personally we were never able to see the practical value of some of the foot amputations, unless perhaps to test the acquirements of the student on examination day.

We believe, however, that Hey's amputation is often of value and gives excellent results.

Religion and Medicine.

The *Journal* of The American Medical Association presented an editorial on the above subject in the last issue, which, to say the least, was in very bad taste. The writer seems to think that medicine and religion

are akin. Possibly they do mix well from a commercial standpoint, but scientific medicine and religion are about as miscible as oil and water. Cant is unworthy of so pretentious an organ as the Association *Journal*. The writer of the article would do well to imitate the style of the editorial which followed it in the same issue, on the subject of "Water Purification." Practical and broad-gauge editorials such as the latter are a *sine qua non* in successful journalism. Slush, and especially religious slush, has no place in the editorial columns of the *Journal* of the American Medical Association.

Apropos of the above, we are pleased to note that the *Journal* is now in the hands of Dr. J. C. Culbertson, one of America's brainiest and ablest medical editors. We venture to say that the future of the *Journal* is very promising under the new administration. The late editor, able, industrious and conscientious though he certainly is, could not do himself or the *Journal* justice on account of his large and exacting practice. Dr. Culbertson has the opportunity to distinguish himself in the management of the *Journal*. We believe he will do it.

A Diagnosis.

Nature with a lavish hand has endowed the human body with no less than s'teen million of spots to which an ache or pain can be attached. When each one of these spots, both inside and out, is filled with a hard platinum tipped pain; when your head aches so that you are conscious of all the ruffles and scallops on your brain just as you see them in the pictures in your physiology; when your heart thumps and your stomach wobbles and you have the feeling that something is wallowing through your inside works; when your sternum feels stove-in and there is an uneasiness under your shoulder blades as though your wings were beginning to sprout; when you are one moment alive to the finger tips with thinking of the things you must get up and do and the next completely exhausted by even the thought of doing them; when your backbone has the sensation of being twisted by a monkey-wrench; when you are so dizzy that you can't see, and your ears ring and eyes water and your nose is in such a state that it is presumption to lay aside your handkerchief for one short minute; when you cough and sneeze and groan in turn—in fine, when you feel like the very deuce— you can set it down that you have the grip.

The Eternal Fitness of Things.

One of our friends who was pensively watching a flock of English sparrows pecking away among the offal in the road, observed *sotto voce*, "And not even a sparrow falls to the ground," etc. A gentleman standing near by remarked: "Lo, alas! The indigestion of the horse is the salvation of the sparrow." This is worthy of profound contemplation, and serious consideration.

The "Chicago Medical Recorder."

The *Chicago Medical Recorder*, the new organ of the Chicago Medical Society, is one of the most attractive of American Medical journals. It is well made, ably edited, and should have the support of the Chicago profession. We bespeak for the new journal and its scholarly and accomplished editor, the marked success and ample patronage that it deserves. By putting our shoulders to the wheel we Chicago doctors can aid Dr. Church in building up a journal which will be a credit alike to the city and the Chicago Medical Society.

ABSTRACTS.

Ophthalmology.

RARE CASE OF FOREIGN BODY INVOLVING THE EYE By J. W. WRIGHT, M. D.—*Columbus Medical Journal.* Was consulted by Mr. T., a machinist by trade, for pain in the right eye, especially in the supraorbital region. The suffering was of recent origin and accompanied by severe neuralgic pains in the right side of head.

Four years previous to his presenting himself for treatment, while engaged in chipping a piece of iron, he received a shock to his eye, as if struck by some person, but on rubbing the eye and feeling that it was not injured, he continued his work, and felt no discomfort until a few minutes after when he made the discovery that he had double vision, by unfortunately severely wounding his finger by a misdirected stroke, and was for this reason compelled to quit work for a few days. Two days after his eye became greatly inflamed and continued so for about four weeks, the pain being very severe. The vision was imperfect, there floating constantly before it six or seven spots that proved a source of inconvenience, but aside from this there was no other annoyance for about the space of four years.

At the time the patient came under my observation there was little congestion about the eye, but the iris presented a somewhat greenish appearance as having undergone at some previous time a severe inflammation. There was a small corneal opacity to the right of the pupil and immediately opposite a small opening in the iris, indicating that these structures had been transfixed some time before with a foreign body.

The ophthalmoscope developed the fact that the vitreous was quite opaque and filled with floating debris, but it was impossible to discover any fixed foreign body or the course it had taken upon its entrance into the eye. He now saw about forty bodies instead of six or seven and they moved constantly instead of being fixed as formerly. As the patient would not consent to have the eye removed, there still existing some vision, I prescribed an anodyne to relieve the pain and did not see him again for about a week, when he stated that there had been no cessation of the pain, which he thought had increased.

The following day upon removing the eye a chip of steel almost three-fourths of an inch in length was found protruding through the sclerotic, within less than one-fourth inch of the optic nerve entrance, about one-fourth inch of which showed on the inner surface and almost one-half on the outer, having been buried in the cellular tissue behind the eye.

During the inflammatory stage that followed after the steel had entered the eye, it had become encapsulated and for a long time remained there without causing further inflammation, but after a time on account of the oxidation of the iron this encapsulated matter became disorganized and diffused throughout the vitreous humor, causing the appearance of so many spots in his field of vision.

Surgery.

BONY DEPOSIT IN THE TENDON OF THE TRICEPS EXTENSOR MUSCLE. J. C. OLIVER, M. D.—*The Cincinnati Lancet-Clinic.*—Frank McG., an American, 43 years of age, following the occupation of street car driver, entered the hospital for treatment having suffered from rheumatism eleven years before, and also from an injury to foot fourteen years previous, which interfered with his walking to some extent.

The present trouble dated four months back when he was struck on left elbow by the car break, but as only a small piece of skin was torn off, he applied adhesive plaster and thought nothing more of it. Two months from this time he was attacked with rheumatism and was confined to house for six or seven weeks, during which time what appeared to be a boil made its appearance on the site of the old wound on elbow. This grew very rapidly and burst leaving an abraded surface about two inches across, the soft parts sloughing and discharging a yellowish substance. The elbow itself was not painful, but for several inches above and below the joint there was severe pain. On introducing a probe it passed directly into the joint and excessive granulations were present over the open wound. After thoroughly cleansing this with a bichloride of mercury solution, the sloughing tissue was removed, iodoform dusted over and the whole encased in iodoform gauze. This having become saturated it was removed the next day and the elbow redressed. Hydrargyrum bichloride in one-twelfth grain doses was given three times daily.

Ten days later under an anæsthetic, examination was made which revealed the fact that the osseous tissue was above the bones and in the substance of the triceps tendon. The central part of the tendon was removed with a large amount of bony deposit, when it was found that the capsule of the joint was open and a view of the interior could be easily had. The joint itself appeared to be healthy and there was no need of further operation. In two days patient was able to sit up and in a week the wound was granulating nicely. About one month after a few particles of osteoid tissue were removed with a sharp spoon and the wound now entirely healed.

It being the common practice of the man to rest his his arm on the rail of the car, the continuous pressure was probably the exciting cause of this condition.

ENLARGED BARTHOLIN GLAND. WALTER B. CHASE, M. D.—*Brooklyn Medical Journal.*—Mrs. H., suffered with soreness in the region of the vagina and an examination revealed a growth about the size of a large hickory nut, tender on pressure and situated well backward under the right labium majus. It was evidently cystic and regarded as an enlarged Bartholin gland; an operation for its removal being advised.

Some six months later she again presented herself with greatly aggravated symptoms, the growth now being as large as a hen's egg. The protrusion of the growth was marked, the bulk of it being to the right of the right labia and below the ostium vaginæ.

An operation now being fully decided upon it was performed a few days later by making an incision about two inches in length parallel to and outside the labia majoræ, in order to remove the growth entire, which was partially behind the transverse perinæi, reaching to the tuberosity of the ischium. There was no difficulty in separating it from the surrounding structures, with the handle of the scapel, but at the point of development and attachment, just inside the ostium vaginæ, trouble was experienced in detaching it from the vaginal mucous membrane, and a slight opening was made in the vagina, but this closed in about five days. There was considerable venous hæmorrhage from the wounding of the superior perineal obturator and communicating epigastric veins, which was controlled by catgut ligatures and torsion and the cavity closed by buried catgut suture, the whole being dressed with iodoform gauze and a perineal bandage applied.

The evening of the operation there appeared extensive discoloration, embracing the right perineal space, labia majoræ and integument, nearly to the groin, as well as to the gluteal folds, the result of extensive ecchymosis,due to slight interstitial hæmorrhage from the venous capillaries. There was some oozing from the wound and the swelling had encroached upon the right half of the vagina. Very hot compresses from opium water, with a percentage of carbolic acid were applied, and in forty-eight hours the discoloration was preceptibly diminished, and the swelling had abated.

Two-thirds of the cavity healed by primary union, and the balance by granulations, under strict antiseptic cautions. The patient made a good recovery and has had no further trouble.

HIP JOINT AMPUTATION FOR RECURRENT LYMPHO-SARCOMA.—PRELIMINARY LAPAROTOMY AND DIRECT COMPRESSION OF THE AORTA.—RECOVERY. Neal Hardy, M. D. *Universal Medical Magazine.* A sparely built man of nervous temperament, thirty-four years of age, presented himself for examination and stated that twelve years before a small, round and painless deeply seated tumor made its appearance in the muscular structure of the outer and middle portion of the left thigh. On its being excised it recurred time and again, multiplying in numbers and disseminating themselves further into the muscular tissue, until they had assumed enormous dimensions, extending from the groin several inches below the knee, involving the popliteal region, knee-joint, periosteum, muscles, tendons, nerves and blood vessels, and encircling two-thirds of the leg.

The patient was advised to have amputation at the hip joint, but would not consent, so an operation for extirpation of the growths was made, which required four hours for its accomplishment. Some of these were the size of an orange, and by the aid of the microscope showed round, sarcomatous cells.

The wound, twenty-two inches long, healed quickly and in one month patient was able to be about his business, with but little discomfort and with good prospects for ultimate recovery, but six months later the nodules again made their appearance, grew rapidly and in four months the leg was nearly equal in circumference to the body. It was very vascular, with discoloration of the cuticle and threatened gangrene, and an operation became imperative, which was in a short time performed as follows:

A section three inches long and one inch to the left of the umbilicus was made through the abdominal wall, sufficiently large to admit the passage of the fingers. The descending aorta was held firmly between the finger and the posterior abdominal wall, completely arresting circulation in the lower extremities, and an assistant compressing the artery in a

similar manner, the leg was amputated at the hip-joint by introducing a straight, single-edged amputating knife, just above and one inch in front of the trochanter major, the edge of the knife being directed downward, in the line of the axis of the limb. From this point the knife was made to penetrate transversely and with a slight inclination backward, so as to strike the head of the femur in its upper half and near the upper margin of the acetabulum; then inclining a little backward, the head of the femur was struck on its outer aspect, the point of the knife passing safely between the head of the bone and the anterior crural nerve and femoral vessels, penetrating the capsule in its descent over the head of the femur, passing under the ilio-femoral ligament, psoas-magnus and iliacus internus, and emerging just below the tuberosity of the ischium. The anterior flap was rapidly completed; then, by a crucial incision through the capsule and rotary movement of the leg downward and outward, disarticulation was accomplished. After dividing the ligamentumteres, the knife was placed at the head of the bone, and the posterior flap made. The arteries were ligated, the muscles and integument were coaptated, and a dry antiseptic dressing applied over both wounds. The patient made a good recovery, having but a slight rise of temperature, and four months after the operation there have been no indications of a recurrence of the sarcoma.

PANCREATIC CYST. REMOVAL BY LAPAROTOMY. RECOVERY.—D. HAYES AGNEW, M. D., *University Medical Magazine.*—A lady married three years, and aged twenty-six, suffering from an abdominal tumor, giving good family history, had had one healthy child, but fifteen months before she came under my care had miscarried.

About six weeks after first child was born as she experienced frequent cramps in the epigastric region after eating, it was supposed to be due to some disorder of the digestive apparatus. Vomiting afforded marked relief or terminated the pain altogether, but these attacks still continued at irregular intervals for several months, when a swelling was noticed, quite circumscribed and movable, occupying apparently the left hypochondriac region, which was quite distinct at times, and then would disappear.

Upon an examination being made the tumor was found to be very large, centrally located, movable in any direction except downward, tense and elastic. The enlargement presented a peculiar feature in the constant alteration in form and resistance, some days being spherical and hard, and on others ovoidal and flaccid, indicating a cyst, the fluid contents of which found a place of escape when the walls became over-distended and probably caused the diarrhœa, from which the patient had suffered in spells for the last six months. The resonance over the abdominal walls indicated that the cyst was deeply located behind the hollow viscera.

An operation was performed by opening the abdominal cavity through the linea alba, dividing the gastro-colic omentum and exposing the walls of the cyst; this being tapped and about three gallons of a light brown fluid were removed. Exploration with the finger showed that the cyst was attached high up, behind the stomach, to the pancreas, and had contracted adhesions so general that it was impossible to detach the connections. The interior of the sac was thoroughly washed out with a boric acid solution, the opening stitched on the external wound of the abdominal parieties, and dressing applied as for an ordinary laparotomy.

In two weeks time the discharge from the cyst had ceased, and four weeks after operation patient was allowed to return home perfectly well. As there has been no recurrence of the trouble in one year the cure is probably a permanent one.

REMOVAL OF GALL STONES BY ETHER SOLUTION. JOHN W. WALKER, M. R. C. S.—*The Lancet.*—H. V., a married woman, 27 years of age, had suffered since the ninth year of her age from severe pain in the body which was usually attributed to indigestion. As the pain gradually became more and more acute, it was decided four years before coming under my notice that the difficulty was caused by gall stones.

Being called to see her during a very severe attack on the third day was able to push the stone forward into the bowel by digital manipulation, and it was found the following day in the fæces. This gave the patient instant relief, but in two days the pain returned and another stone was distinctly felt through the thin abdominal wall, but it was impossible to push it into the bowel, and it was driven back to the gall-bladder. One week later a stone was felt in the duct which could not be moved either way. Morphia was given hypodermically in large doses, but it failed to give relief to the continuous suffering and as there had been no material change for ten days in the position of the stone, it was determined to perform cholecystotomy, which was done the next day.

With two assistants we cut down to the gall-bladder, making a vertical incision over the fundus. The viscus, not much distended, was easily brought into view, and on introducing two fingers into the abdominal cavity, several stones were felt within the bladder, and one just within the cystic duct. An incision was made into the gall-blader, a finger introduced and several stones removed, the one giving rise to the trouble found embedded in the cystic duct, about one-quarter of an inch from its vesical end.

It being impossible to push this stone into the gall bladder, or to move it at all, a small sharp spoon was passed on to the stone within the duct, and with the finger tip against the stone, it was cut in two, the halves removed by manipulation as was also another stone which was found beyond it. Altogether 27 stones were removed. The edges of the gall bladder were sutured to the parietal wound, a rubber drainage tube inserted into the bladder, and absorbent dressing applied. The following day there was a slight rise of temperature, which gradually fell to normal by evening, and afterwards remained so. Two days after operation there was considerable vomiting of greenish fluid, but upon removal of the drainage tube this ceased and convalescence continued uninterruptedly. The wound looked perfectly healthy, but did not entirely heal, a fluid resembling the white of egg being daily discharged through it, which was no doubt the secretion from the gall bladder itself. One month after she returned to her home feeling quite strong, the fistula, however, remaining.

For seven months she continued perfectly well, when she miscarried at the end of a two months' pregnancy and severe abdominal pains came on, caused by another stone passing along the cystic duct. The

stone was felt by a probe passed through the fistula into the duct, and seemed to be about the size of a split pea. As it was impossible to extract it with forceps, the gall bladder was washed with a warm boric solution and a mixture of equal parts of ether and glycerine were placed in a small glass tube attached to a syringe, the tube passed directly on to the stone and the ether glycerine injected drop by drop. No great discomfort was felt with the exception of a burning sensation, and slight exhaustion of the patient for the remainder of the day. The pain gradually lessened, and on the second day an examination of the gall bladder and duct failed to reveal the presence of any stone. Patient now at the expiration of six months has been absolutely free from pain.

Abdominal Wound with Intestinal Protrusion. Recovery.—C. H. Thompson, M. D. *International Jour. of Surg.*—Five hours after accident, was called to see patient fifty years of age, who had been stabbed in the abdomen with a stiletto. The wound was three-quarters of an inch in length, the inner angle being three and one-half inches to the right of the navel and one inch above. The direction taken was downward and outward, obliquely to the perpendicular axis of the body. A mass of intestines protruded from the wound, consisting of a colon as large as two fists and about fifteen inches in length. His bowels not having been moved for three days the intestine was of a blood red color, and of a lusterless velvety appearance. As he had been drinking freely of new half-fermented wine the day of injury, his intestines were full of gas, which had forced the colon, doubled upon itself, through the small opehing.

Chloroform was administered and the intestine punctured with an exploring needle, the aspirator not being at hand. The protruding portion and the abdomen was washed thoroughly with a 1–1000 bichloride of mercury solution, and finding it impossible to replace the intestine through so small an opening it was enlarged two inches externally, and nearly as much internally, the incision being made on a line nearly parallel with the ribs and the fibres of the external oblique muscle. By severe and constant manipulation for a considerable length of time, the intestines were returned to the abdominal cavity. The wound was sutured with braided carbolized silk through the integument at a distance of five-eighths of an inch from the margin of the incision, and through all the structures except the peritoneum, which must have been torn far beyond the incision, as it was found on the lower side of the wound, but on the upper side it had retracted so far back from the edges that it could not be reached. Warm fomentations were constantly applied to the whole abdomen and one-half grain of morphia was given.

Some twelve hours later patient suffered considerable pain, and a warm water enema was given, producing but moderate movement of the bowels. Five days after accident, there was a good fæcal passage and the next day, the sutures were removed, as their presence seemed to excite considerable inflammation, and it was found that quite firm adhesion had taken place.

For four days after operation the temperature did not exceed 102°, but on the fifth day it rose to 103°, which state continued for nearly a week, attended with increased soreness in the region of the wound, loose discharges of bloody pus and fæcal matter, then fell to normal and remained so. Hot fomentations were used continally for two weeks, no stimulants and very light diet. He made a rapid recovery and in six weeks was discharged.

Diaphragmatic Hernia, Traumatic. H. C. Dalton M. D.—*The Cincinnati Lancet-Clinic.*—A man aged twenty-six had been treated in the City Hospital some two years previously for a penetrating stab wound of the left thorax, the knife entering the seventh intercostal space, two inches to the mammary line, and as no grave symptoms made their appearance he was discharged apparently cured. On his readmittance in January, of this year, he was suffering great pain, pulse 90 and weak; temperature 103 F. and respiration 30. He stated some five days before he had been seized with sudden and severe pain in the abdomen, referred to the umbilicus, which had continued so constantly that he had not slept an hour. Purgatives and enemata failed to cause a movement of the bowels, nor had he passed flatus.

The abdomen was hard and swollen, and percussion gave general resonance, more marked in the epigastric and both iliac regions and the pain throughout the abdomen was much increased by pressure. He was given several large enematas but they failed to have effect.

The diagnosis being made of internal hernia or strangulation of a portion of the intestine by a band, it was deemed advisable to perform laparotomy and the abdomen was opened by an incision in the median line, peritonitis found, and the intestines all inflated, save the descending colon, which was collapsed. A diaphragmatic opening was discovered in the neighborhood of the splenic flexure of the colon, through which all the omentum and twelve or fifteen inches of the colon had passed into the left thoracic cavity.

All efforts to remove the mass by steady traction failed and an incision one-half inch in length was made in an upward direction, two fingers introduced, some omental adhesions broken up and the mass was then easily returned to the peritoneal cavity. The difficulty was somewhat relieved by passing a tube up the descending colon and allowing considerable quantity of very fetid flatus to escape. The slight hæmorrhage was arrested by a gauze tamponade, the ends of the strips left protruding from the upper angle of the median incision.

The patient did not rally from the effects of the operation, but died in about four hours.

Medicine.

Severe secondary hæmorrhage after tonsillotomy. Dr. M. Thorner.—*The Cincinnati Lancet-Clinic.*—The patient, a young man age 25, suffered from recurrent attacks of parenchymatous tonsillitis until his health became greatly impaired and it was decided to perform tonsillotomy, which was done successfully with MacKenzie's tonsillotome, there being but very little bleeding after the operation and this easily checked. Two days subsequent he informed me that there had been a considerable bleeding from tonsils the previous evening and upon examination I found a moderate oozing from the right tonsil which was readily stopped with the aid of the tanno-gallic acid gargle.

The following night I was suddenly summoned to res-

idence of patient and found him pale, covered with cold perspiration, extremities cold, pulse weak and he evidently had lost a great deal of blood, there being still a small stream spurting from the upper edge of the tonsil which was almost hidden between the pillars of the fauces. This had been continuous since 10 p. m. and it was now 3 a. m., everything proving unavailing in checking the flow. The bleeding vessel was finally grasped with a slender hemostatic forceps, and the hæmorrhage stopped by torsion. There was a repetition of the same some hours after, and in fact it threatened to occur whenever the patient attempted to lie down. The surface was finally covered with the tanno-gallic acid in powder form, and the young man advised to rest in sitting posture for the day, only taking a little icewater from time to time. This effectually stopped the bleeding and the patient slowly regained his health.

Obstetrics.

SEVERE PUERPERAL ECLAMPSIA. IMMEDIATE INDUCTION OF LABOR. RECOVERY.—Wm. H. Morris, M. D. *Medical Progress.*—In Jan. 1891, was called on by Mrs. X. twenty-two years of age, and married nine months, pregnant seven and a half months, but had experienced no sickness at stomach or other ailments during this time, until a few weeks previously when the kindeys began to trouble her and she was obliged to get up from twenty to thirty times at night to urinate. The water passed was thick, muddy and on examination one-half of its bulk was albumen, but microscopical examination did not reveal tube casts. She was given a mixture containing tincture of digitalis and bromide of potassium, and the next day for severe headache five grains of antipyrine were ordered.

During the night she had two general convulsions, in which she had bitten her tongue, and as the urine was found to still contain over one-half of its bulk of albumen, the induction of premature labor was advised. Before morning she had at least four convulsions and upon consultation with others it was agreed as to the propriety of bringing the pregnancy to a speedy termination.

The vagina was irrigated with a bichloride solution, and an English flexible catheter was introduced its entire length, between the membranes and the wall of the uterus, care being taken not to rupture the membranes. The os was found dilated sufficient to admit one finger and the head was presenting.

A bichloride tampon was placed in the vagina, and about two ounces of urine was drawn with catheter, which was of a dark chocolate color. The recurrence of the convulsions was prevented by the administration of ether, and one hour after the introduction of the bougie labor pains began, which were evidently felt by the patient, although she was in a practically unconscious condition. After the continuation of the pains for an hour and a half, the vaginal tampon was removed and the os found to be dilated to a diameter of two inches. The bougie was removed and the vulvar orifice carefully dilated to admit the hand and the os stretched digitally until sufficiently dilatation for the application of the forceps was secured. The membranes were then ruptured, forceps applied and a dead child delivered without any tear of the cervix or perineum in three-quarters of an hour, just five hours after the introduction of the catheter. The uterus contracted well and the placenta was delivered without difficulty. There were no convulsions during labor, ether being administered, but immediately after two spasms occurred. As she soon became quiet all anæsthetics were stopped, and chloral was given in fifteen grain doses every two hours, until seventy-five grains had been taken.

After delivery temperature was 104.2 but this gradually fell until midnight when it reached normal. At 5 o'clock, p. m., the use of the catheter produced two convulsions and ten minims of digitalis were administered subcutaneously and then given in five drop doses every two hours. The convulsions recurred every two or three hours during the evening until midnight, after which the patient rested quietly but did not regain her consciousness or could be roused until the following day, and then not enough to reply to questions. Calomel in one-sixth grain doses was given every hour until bowels were freely moved and the patient began to steadily improve, two weeks after the urine showing on examination c mplete absence of albumen.

Otology.

DEFECTIVE HEARING IN SCHOOL CHILDREN.—Dr. Thos. Barr (*"British Medical Journal"*) says that teachers should keep in view that in every class of fifty children, there are probably at least a dozen who have some defect of the hearing, and are at a disadvantage with their normally hearing fellows. Children known to suffer from defective hearing should occupy a position on the bench nearest the teacher. If the defect be limited to one ear, the child should be so placed that the better ear be turned to the teacher. Children with extremely defective hearing, or totally deaf, should not be placed in ordinary classes, but taught in a separate class by one who is qualified to teach the German method of articulate speech and lip-reading. Children whose progress is unsatisfactory, who are unattentive, dull and idle, should have the capacity for hearing ascertained by proper tests. If defective hearing is found, the parents should be so informed and the children's position in the class so arranged as to minimize the bad effects of defective hearing.

Therapeutics.

CAFFEINE IN PNEUMONIA.—De Gempt (*Berlin klin. Woch.*) urges the use of caffeine in cases of threatened collapse in various asthenic diseases, but especially in acute pneumonia, and cites several cases in which it was successfully used in conjunction with stimulants. He believes the drug indicated in the course of acute pneumonia when there is evidence of cardiac failure, such as rapid, irregular pulse with lowered tension. Should the pneumonia be of asthenic type, it should be used from the onset, and the earlier in the course of the disease it is used after asthenia develops, the better. In cases of this sort, caffeine, in doses of 0.35 grm. four to five times daily, raises the arterial tension, diminishes the rate of the respiration and pulse, and lowers the temperature. Its action is prompt, but in urgent cases it had better be used hypodermically. It is advisable to continue it for a brief period after the febrile defervescence.

CALOMEL IN INFANTILE SUMMER DISEASES.—Small frequently repeated doses of calomel are recommended by Dr. Musser, Philadelphia, in summer diarrhœa and vomiting of infancy. In severe cases, a powder

containing one-eight to one-twentieth of a grain of calomel is used, combined with one-twelfth to one-fourth grain of Dover's powder, if there be much pain, fever or restlessness. These ingredients, combined with a small quantity of powdered sugar, make a very minute powder, which is placed dry on the tongue and washed down by a spoonful of water, with or without stimulant. The dose should be repeated every half hour at first.

SULPHIDE OF CALCIUM IN PHTHISIS.—Dr. Witherle [*La Clinique*] claims to have obtained good results in the treatment of phthisical patients by the internal administration of sulphide of calcium. He commences by giving a pill containing ½ grain of the sulphide every two hours, and he gradually lessens the intervals between the doses until eructations or other symptoms of gastric irritation show that the limit has been reached. In most cases patients were able to take two pills every hour, and their general condition in every instance appeared to improve. This is, in reality, an indirect method of introducing sulphuretted hydrogen into the blood, and the principle is the same as that underlying Bergeon's treatment.—*London Med. Recorder.*

In the excellent paper on "dose dispensing" by Dr. A. B. Somers (now of Omaha), he says: "As the years go by I have more and more reason to respect the effect of small doses of medicine often repeated. If some of my older friends are skeptical on this subject, let them try the effect of small doses of tartar-emetic (gr. 1-100 to 1-50) in a case of acute bronchitis, with high fever, repeated every half hour from twelve to twenty-four hours, and see the direct sedative effect it will have on the mucous membrane of the lungs and air passages, accompanied by lessening of frequency of pulse and diminution of temperature; or in case of acute dyspepsia, usually denominated bilious attack with fever, try the effect of calomel gr. 1-10, alternated with ipecac gr. 1-10 and bicarbonate of soda gr. ½ to ⅛ every two hours, and see how a single grain each of calomel and ipecac, with less than ten grains of soda bicarbonate, will reduce the temperature and produce even more copious discharges of bilious matter than we are in the habit of getting from large doses of calomel, or vegetable cathartics, and without any of the griping and uncomfortable symtoms usually accompanying the powerful doses; or to illustrate further, try in the first case of hepatic colic, or severe pain you meet with, the almost magical effect you will get from morphia gr. 1-20 to 1-40 combined with tartar emetic gr. 1-50 to 1-100 and administered every five minutes. Hypodermics of morphinal in much larger doses is scarcely more effective.

HYOSCINE. The *Medical and Surgical Reporter* contains the following: "Concerning the use and value of hyoscine, Erb (*Therapeutische Monatshefte*) reports that he has found the three salts of (H. Hydroidicum, hydrobromicum, hpdrochloricum) about equal value, and that he has given them in doses of $^1/_{75}$ to $^1/_{200}$ grain. Among its useful qualities, he shows that the remedy acts as an energetic check on the salivary secretion, and can be used with advantage as a temporary cure in salivation; that in many cases it is an effective hypnotic; that it is an especially useful drug in paralysis agitans, inasmuch as when given in small doses ($^1/_{75}$ to $^1/_{200}$ grain) it usually allows the patients the free use of their limbs for several hours, and in many stops the tremor for the time being. In spasms of single muscles, or groups of muscles, the remedy is of value. Caution must be exercised in giving the drug, as many patients possess a marked intolerance for it, and show poisonous effects even from small doses."

STRYCHNINE IN DELIRIUM TREMENS.—Large doses of strychnine are being used in delirium tremens and alcoholism, with success that renders the promoters of the methods enthusiastic (*Boston Med. and Surg. Journal*). The originator, Luton, of Rheims, gives as high as a twelfth of a grain two or three times a day, by mouth or subcutaneously. Dujardin-Beaumetz reports uniformly good results from the practice. No toxic effects are produced, but a marked benefit ensues. The insomnia, agitation and delirium severally disappear. Sleep was in some instances induced, after all other hypnotics had failed. The "why and wherefore" of this new method of combating alcoholic delirium is thus explained by Dr. Ramos, of Brazil: "I believe with M. Luton that in chronic alcoholism there is inertia of the excito-motor properties of the spinal cord, which enables the patient to tolerate large doses of strychnine. In these cases the strychnine has a substitutive action on the nerve centers, antagonizing the excitant action of the alcohol."

CALCIUM SULPHIDE FOR BOILS. Calcium sulphide in doses of the one-hundreth of a grain, will check the formation of pus in boils, while that result will be hastened by the use of one-half a grain.

MONOBROMIDE OF CAMPHOR.—The monobromide of camphor has been successfully used in the treatment of spermatorrhœa, where a host of the usual remedies had been administered with no satisfactory results; finally, the monobromide of camphor was given in two to three-grain doses, four times daily, with prompt effect and perfect cures.

This remedy is especially indicated or adapted to old-standing cases, where the seminal emissions are dependent upon a morbid and relaxed condition of the generative organs.

Spartine Sulphate is said to be a cardiac stimulant and tonic. It can be used in morphinism or opiumism with success.

SALICYLATE OF MERCURY.—First introduced to the medical profession in 1881, it has of late years found a gradually increasing field of application and usefulness. It rarely, if ever, produces intestinal irritation, nor does it cause stomatitis, unless taken in very larges doses. Naturally it has found its greatest field of usefulness in syphilitic cases; internally, as an injection, and as a collyrium. For topical application it is mixed with vaseline 10 to 30 grains to one ounce or vaseline. Internally it is given in pill form in doses of ½ grain three or four times a day. It has found a wide application in diseases of the eye. Taken internally in iritis, scleritis choroiditis and retinitis, and applied locally in simple and purulent conjunctivitis, the most favorable results have been obtained. A solution of 15 grains to one ounce of water is used in the latter cases.

ACONITINE IN THE TREATMENT OF SYPHILITIC HEADACHE.—Leroy, (*Ann. de Dermat. et de Syph.*; *Rev. Hebdom. de Therap.*, *Gaz. Hebdom. des Sci. Med.*) reports good results from the use of aconitine in headaches

of syphilitic origin, especially those of the secondary period. He thinks it ought always to be tried when an idiosyncrasy interferes with the employment of potassium iodide and quinine. But it does harm rather than good in cases where the pain depends on a serious cerebral lesion; hence it may be used for diagnostic purposes. The amount administred in twenty-four hours by the author never exceeded $^{15}/_{1000}$ of a grain.

Benzoate of Sodium in Acute Follicular Tonsillitis.—L. C. Boisliniere, Jr., of St. Louis, in an analysis of seventy-fives cases, found that by the use of benzoate of sodium, acute follicular pharyngitis was cured in from twelve to thirty-six hours, whereas the average duration of the disease by other treatments is from two to five days. When the cases could be watched carefully, as in private practice, the white, cheesy spots were frequently seen to disappear in from eight to ten hours. The drug undoubtedly controls the febrile elements of the disease. Having never encountered disagreeable effects from even large doses, he considers that it may be given with impunity even to children.

Gynecology.

Uterine Fibroid. H. C. Dalton, M. D.—*Cincinnati Lancet-Clinic.*—M. W., a woman of twenty-eight years of age had been greatly troubled for three or four years by pains in the back, which if simultaneous with the menstrual flow greatly increased it in quantity. For some months before admission to the hospital the flow had been quite excessive, back ache and bearing down pains marked and the period lasted a full week. Two days before seeing her while standing she experienced a very severe bearing down pain, followed by the forcing into the vagina of a bloody tumor which protruded from the vulva. The physician called pressed it back but the day after while at stool the same mass was again forced down, during an expulsive pain.

Upon examination a hard, firm tumor about the size of an ordinary bullock's heart, of a darkish brown color, and almost gangrenous was found protruding from the vulva.

Two fingers of the right hand were inserted in the vagina, the tumor grasped with the left and by using considerable force the fingers were introduced into the uterus bringing away the tumor together with two others, about one-fourth the size of the first. They were attached to the fundus and sessile in character. But little hæmorrhage followed the removal. A 1-5000 bichloride solution was used to irrigate the uterus with tampon of iodoform gauze. The temperature of patient for two days was 102°, but after fell to normal and continued so.

Chole-Lithotomy.—H. S. Myers, M. D. *The Medical Summary.*—Mrs. H., a native of New York State, married eight years, in July, 1890, first noticed an abdominal enlargement and upon examination she was told that it was connected with the liver and an operation would be necessary. As she lived in the West, she determined to visit the East for treatment and came under my observation. Bimanual examination without anæsthetic showed a movable tumor, pyriform, non-fluctuating, and situated at a point corresponding to the margin of the liver, developing diagonally downward and inward toward the umbilicus. It was smooth and rounded on the surface, globular, ovoid or pear-shaped in outline, and movable in lateral directions, and to some extent backward the respiratory movements having little effect upon it. Digital pressure caused the tumor to recede from before backward. There was no record of an attack of icteria or jaundice, the conjunctiva being normal in appearance, but there had been occasional spells of biliary colic, but no passage of biliary calculi.

An operation being agreed upon, and patient placed under the influence of ether, a vertical incision four inches in length corresponding to the long axis of the tumor was made through the skin and its various investments, until the peritoneum was reached, which was caught up by catch forceps and incised. The gall bladder being thus exposed to view was manipulated outside of the abdominal cavity, flat sponges protecting the surrounding parts and prevented to some extent the entrance of bile. A division of the walls of the gall bladder was made sufficiently large to admit the fore-finger carefully inserted, followed by the introduction of the metallic scoop. Seven gall stones were removed with smooth facets, irregular in appearance, indicating considerable attrition within the interior. A free hæmorrhage followed, but was easily arrested by pressure-forceps.

Continuous suture closed the incision, and drainage tube inserted, after previously inserting a delicate trocar with india-rubber tubing attached. Iodoform was dusted over the surface, and a bandage applied over an absorbent pad of cotton. The patient was able to sit up on the twelfth day, but stated she was still subject to attacks as formerly, but in a much less degree.

Book Reviews.

"Essentials of Diseases of the Eye, Nose and Throat." By Edward Jackson, A. M., M. D., and E. Baldwin Gleason, S. B., M. D. Philadelphia; W. B. Saunders.

This little book is divided into two parts, the first consisting of Essentials of Refraction and Diseases of the Eye, by Dr. Jackson, and the second by Dr. Gleason, which treats of the Nose and Throat. The principles of the normal refraction of the eye, its more common errors and their modes of correction, are presented in a thorough and satisfactory manner. The subject is laid before the student with admirable skill and who ever will give the book a little study will have a good foundation for future work. The same can be said of part second, which is largely made up of abstracts from the writings of noted throat and nose specialists, judiciously selected and arranged with a view of proving of worth to the student in his dispensary work. The book is well illustrated and the whole being in a condensed form, is of great value, not alone to those seeking knowledge for future service, but to the hurried practitioner for reference.

"Familiar Forms of Nervous Disease." By M. Allen Starr, M. D., Ph. D. With Illustrations, Diagrams and Charts. New York: Wm. Wood & Co.

This work does not claim to be a treatise upon nervous diseases, but is a series of clinical studies of the more familiar types. The data which have been utilized, have been selected from American sources, and the value of such a volume is considerable in enabling the practitioner to diagnose many affections

previously obscure, and to open to successful surgical treatment a number of diseases heretofore considered fatal. Particular attention is given to facts in order that the precise position and character of lesions in the central nervous system may be accurately located. The well-known ability of the author of this work will place it in many libraries where it will prove a great addition.

"Heredity, Health and Personal Beauty." By John V. Shoemaker, A. M., M. D.; Professor of Mat. Med. Pharm., Therap. and Skin Diseases in the Medico-Chirurgical College of Philadelphia, etc. F. A. Davis, publisher, Philadelphia. 8vo., pp. 422, cloth, $2.50.

Although this work is not intended specially for the medical profession, but rather for popular perusal, it contains many things of especial value to the physician and also to the laity. In it will be found a vast amount of information in regard to the general laws of health, the laws of life and growth, man's spiritual and physical place in nature, the phenomena of evolution, the sentiment of the beautiful, the effects of environment, the art of walking, the skin as an organ of the body, bathing, cosmetics, the care of the hair, parasites, care of the teeth, eyes, ears, nose, food and clothing, ventilation, the circulation and digestion, soaps and household remedies. There is a generally confessed want of popular instruction as to matters of health and other facts contained in this work, particularly among the educated people, and we are glad to see so well and concisely arranged a volume, with which more should become familiar.

A Treatise on Surgery. By C. W. Mansell Moullin, M. A. M. D. Oxon, Philadelphia. P. Blakiston & Co.

This is one of the best and most systematic of the recent text books of surgery, although it will stand a little Americanizing, as indeed may be said of most English works. The arrangement of the work is convenient and most systematic. The chapter on inflammation is especially clear and succinct. In discussing the therapeutic application of heat and cold however, the author is decidedly weak. In the first place heat and cold do not necessarily have opposite efferts upon an inflamed part, nor is it a matter of indifference nor a question of the patient's feelings as to the selection of applications of a high or low temperature. The action of heat and cold is to be studied not in relation to their efferts on nerve, muscle, osseous or vascular structures *per se*, but with reference to their effect on tissue protoplasm. Obviously, tissue metabolism is an important question for consideration in connection with the subject of inflammation. Metabolism being dependent upon changes in the tissue protoplasm—a rearrangement of atoms in nature's laboratory—it is evident that the effect of heat and cold upon this chemism is worthy of serious consideration.

Surgeons should discriminate in the use of these powerful agencies for good or evil, between cases with a general and local depression of vitality and purely sthenic processes. In cellular erysipelas cold has done much harm. The vitality of the connective tissue is trembling in the balance. Along comes a surgeon who believes that cold may be applied, because forsooth the patient says, "it feels good" and as a result of the treatment the already vitiated cells are completely destroyed and suppuration, sloughing and perhaps gangrene result.

Septic fever, and sapræmia are treated in a too brief and hasty manner. But Americans are perhaps a little particular on this point and are likely to be as long as we have such men as Senn to instruct us in such matters.

The subject of tuberculosis is dealt with in four pages —comment is unnecessary; the important relation of tubercular infection to surgical pathology is too well understood by progressive men.

In common with many other surgical authors, Mansell Moulin devotes much space to the consideration of subjects which properly belong elsewhere than in a surgical treatise. Eye, ear, skin and gynæcological subjects really have no place in a surgical work nowadays. More substance in the matters of which the author pretends to write and less space devoted to extraneous matters is a crying necessity.

The book is well made, and taken as a whole is a very valuable treatise especially for the student.

G. F. L.

The Pocket Materia Medica and Therapeutics. By C. Henri Leonard, A. M. M. D. Illustrated Medical Journal Co., Detroit, Michigan.

In this little work Dr. Leonard has tersely yet comprehensively covered the entire range of drugs—new and old. The arrangement of the book is concise, convenient and rational. There is a conspicuous absence of slush, so often a corporate part of books upon therapeutics. To the student such books are invaluable, to the practitioner they are saving of time and of the greatest practical utility.

Dr. Leonard is preeminently a student's author, all of his works being of the greatest value during the college course. We remember his vest-pocket anatomist as an old and valuable friend. Few books of so modest pretensions have equalled it in the matter of sales.

"Diseases of the Eye," By Edward Nettleship, F. R. C. S., Ophthalmic Surgeon to St Thomas' Hospital; Surgeon to the Royal London (Moorfields) Ohpthalmic Hospital; Late Ophthalmic Surgeon to the Hospital for sick Children, Great Ormond street. Fourth American from the Fifth English Edition. With a Chapter on Examination for Color Perception. By William Thomson, M. D., Professor of Ophthal, mology in the Jefferson Medical College of Philadelphia. Published by Lea Bros. & Co., Philadelphia, 1890.

There have been such additions to the science of ophthalmology that the fifth edition of this work comes to us considerably enlarged. It is a very well arranged and most satisfactory work on the diseases of the eye, and the chapter on "operations" is one of the most important to be found in the whole book. There has been inserted as a supplement the chapter from the previous edition upon the Detection of Color-blindness, from the pen of Dr. Wm. Thomson, whose painstaking investigations upon this subject are widely known, his method being generally adopted for the examination of railroad employes. The book will supply students with the information they most need on eye diseases during their hospital or college course, and we can with confidence recommend it to a place in all medical libraries.

"Syphilis of the Nervous System." By H. C. Wood, M. D., L. L, D. 12mo pp. 135. Detroit, Mich.: George S. Davis. 1889. Price, in paper, 25c.; in cloth, 50c.

Dr. Wood has endeavored to condense in this small brochure the facts gathered in a field of wide experience. In the University Hospital out of 5,000

cases of nervous disease, 750 proved syphilitics, while seventeen years of service in the Philadelphia Hospital showed over 1,000 sufferers from syphilis. To this must be added a number of cases in private practice, making a total of nearly 2,000 cases.

These three little volumes belong to the well-known Physician's Leisure Library, which the enterprising publisher, G. S. Davis, has made so popular. Too much praise cannot be awarded to him for presenting so much valuable matter in such an attractive manner—while cheap—to the profession.

MISCELLANEOUS.

Medicine and Money.

The physician who values his time and advice is the man who is appreciated.

He who sells himself for nothing, generally gets all he is worth.

He who goes for half-price, when patients are able to pay a reasonable fee, goes for more than he would bring on the market.

A community never values a physician higher than he values himself.

He who works for love may gain the reputation of a Good Samaritan, but Good Samaritans are not all good doctors.

No greater mistake was ever made than to impress the community that doctors are poor business men. Straightforwardness, promptness, reliability and firmness are elements by which a man's qualifications are determined.

Put off the presentation of your bill for a year, and the patient will conclude that your services were worth but little, and that you knew it.

Never try to gain a practice in a community by charges below the usual fee. If you do, you will move to another quarter and wonder why you were not appreciated.

A physician's bill is a debt of honor. Bankruptcy cannot affect the obligation. The grocer and dry goods merchant may be put off a little, but the physician is more than tea and sugar, coffee and calico. He attends at all seasons and all hours; he adds his sympathies and interests; he bears a part of the anxieties in the trying moments, and advises at all times in pain and peril.

The real business man charges for his services, and collects his bills. To such, a patient will say: "Here, doctor, is your claim. I thank you for your kindness and attention. When my folks get sick, you are our physician.

Withal, be good to the poor. You have them always with you. It is often cruel to accept pay from them. Be systematic in business, so that you will be able to give when and where it is required.—*Lactopeptine Medical Annual.*

Why she Died.

While attending a patient in my earlier professional life—a woman who was in the first stages of intermittent fever—I found one day on making my usual call, a small congregation of women assembled in the sick room. As I entered I heard the remark: "My cousin Samantha's husband was tuk jist this ar way and only lasted nine days.'

"Yes," said a slow-spoken, florid-faced, fleshy woman, "my daughter's husband's sister had the same sickness she's got, and we had the funeral in a week—just a week to a day from the time she was tooken. I went to the funeral and counted forty teams in the percession."

"What be yer a givin', doctor?" asked a third. "I tasted on it and it 'pears like rhubarb and *gingshang* to me, and ef 'tis, why, la'! 'twont do her a bit of good."

"Doctor, did ye ever try pennyroyal tea?" asked another. "My Aunt Hanner's father-in-law, who doctored round here nigh onto thirty-seven year used ter say as how it did beat nater, how much good a poultice did, made of carrots and 'lasses, and he always had one put on. Shan't we try one, doctor?"

"Elderberry juice an' sasafras an' Scotch snuff was what cured me when I was same as she is," volunteered another.

"I writ to her mother last night, that there wasn't no hopes and she'd better come at onct and take care of the young ones," said a small, vinegar-faced, lean woman, who was sitting in a remote corner.

My patient did not recover. How could she? Poor thing. Neighborly kindness killed her. She had not the strength of Samson, neither had she the toughness of a Thanksgiving turkey.

Successful Physicians.

New York *Weekly*: Doctor's wife: "I understand that Dr. Cureall confines himself strictly to office practice." Old Doctor: "Yes, that is why he succeeds. People who are able to walk to an office are generally strong enough to get well without help."

HARD TO PLEASE.—*Indignant Physician*: Man, what have you done? You sent my patient the wrong prescription, and it killed him. *Druggist* (a calm man accustomed to abuse): Vell, vat vas der madder mit you? Last veek I send your odder patient der righd berscription, and dot killed him. How can somebody blease sooch a man?

She Was With Calf.

Queer Letter Written by a Section Foreman to his Superintendent.

At Independence, Mo., last month an engine on the Alton Road killed a cow belonging to a Mrs. Hall, of that place. In notifying the division superintendent of the loss and the woman's claim for damages the section foreman wrote as follows:

"DEAR SIR—I send in a $25 claim for Mrs. J. E. Hall. As they claim she was with calf, but had never given any milk, as this was going to be her first calf."

JAS LYONS, 4 man.

The letter was indorsed "important if true" and forwarded it to the Chicago office. There is a fortune in this for a dime museum, even if "she" gave no milk.

Quite Correct.

One of the clergy at the Christian Endeavor Convention in Portland had this to relate in illustration about the small boy at his home—aged about five years and six months—who had been out shoveling snow:

"Did it make your back ache, my son?"

"No–o," responded the small boy, in the most approved base ball tone.

"Did you ever have the backache?" continued the fond parent.

"No, but I've had the front ache,"

The Difference Between the Two.

A dog which had seen a physician attending the burial of a wealthy patient said: "When do you expect to dig it up?"

"Why should I dig it up?" the physician asked.

"When I bury a bone," said the dog, "it is with the intention to uncover it later and pick it."

"The bones which I bury," said the physician, "are those which I can no longer pick."

Our Jury System.

Doctor—"You are much improved, but you must avoid all mental exertion whatever for the next six months."

Patient—"But, doctor, I have got to do something to make a living."

"Have you any acquaintance with any court officials?"

"Yes, I know several."

"Well, get them to put you on the jury in the Court of General Sessions until you have recovered the use of your mental faculties. I have always recommend jury duty to my patients when they are feeble minded.—*Texas Siftings.*

How Could He?

'Tis a wonder Father Adam could
  Have peached on Mother Eve;
For him in such a wilted mood
  One scarcely can conceive.
For he was builded out of clay,
  The mixture being thick,
And any man that's built that way
  Should be a perfect brick.

The Pneumogastric Nerve.

Upon an average, twice a week,
  When anguish clouds my brow,
My good physician friend I seek
  To know "what ails me now."
He taps me on the back and chest
  And scans my tongue for bile.
And lays an ear against my breast
  And listens there awhile.
Then is he ready to admit
  That all he can observe
Is something wrong inside, to wit:
  My pneumogastric nerve!

Now, when these Latin names within
  Dyspeptic hulks like mine
Go wrong, a fellow should begin
  To draw what's called the line.
It seems, however, that this same,
  Which in my hulk abounds,
Is not, despite its awful name,
  So fatal as it sounds.
Yet, of all torments known to me,
  I'll say without reserve
There is no torment like to thee,
  Thou pneumogastric nerve!

This subtle, envious nerve appears
  To be a patient foe—
It waited nearly forty years
  Its chance to lay me low;
Then like some blithering blast of hell,
  It struck this guileless bard.
And in that evil hour I fell
  Prodigious far and hard.
Alas! those things I dearly love—
  Pies, puddings and preserves—
Are sure to rouse the vengeance of
  All pneumogastric nerves!

Oh, that I could remodel man!
  I'd end these cruel pains
By hitting on a different plan
  From that which now obtains.

The stomach, greatly amplified,
  Anon should occupy
The all of that domain inside
  Where heart and lungs now lie.
But, first of all, I should depose
  That diabolic curve
And author of my thousand woes,
  The pneumogastric nerve!

Cats Cause Ringworm.

"The ringworm is doing well in this city at present," said a prominent physician to an *Examiner* reporter yesterday. "And if this peculiar form of skin disease is not checked and people are not very cautious it will spread rapidly."

"What is the cause of this skin affection?"

"The cat is the principal promoter of it. Children love to carry kittens around with them. The former are often covered with certain fungi or parasites which, when brought in contact with a human being's skin, act similar to poison oak, although the eruptions are of a different character. I have ascertained that in every primitive case I have attended there is always a kitten or cat in the household, and this feline is petted and fondled not only by the children, but by the adults. Let me give a bit of advice to young ladies who hold their complexions at any value when I say don't handle the cat, whether he be the sweetest of kittens or the most valuable maltese."
—*San Francisco Examiner.*

A New Psalm of Life.

BY DR. F. M. WILEY, FREDONIA, KANSAS.

With vision prophetic and cheeks turning pale,
Reviewing the ills that perchance will assail
Its frail life, and each turn of its pathway arise,
A wandering babe might thus soliloquize:—
With such various dangers our life is beset,
It is truly a wonder that any one yet
Sufficiently hardy has proven to be,
To reach the age of maturity.
If at the time of our birth we are not cyanosed,
With saffron and catnip *ad nauseam* we're dosed,
They impale us with pins and put soap in our eyes,
And each cousin and aunt some new torture applies.
Perhaps we are doomed by the doctor's advice,
To be nourished (or starved) by some patent device:
Society and art so absorbing become
That mothers find irksome the duties at home.
Now fountaions of grief our spirit o'erflow—
Now promptly begins a tale full of woe,
Of gastric catarrh, and entero-colitis,
And the horrid compounds of the doctors who treat us.
Of retching and puking and griping satanic,
Of colic, and jaundice, and spasms tetanic.
We're rickety, bilious, have scrofula and worms,
Our peptonized food is loaded with germs
Of trichina, spiralis and ascarides,
Each seeking a home in our anatomies.

At seven months old our incisors appear,
Then canines, bi-cuspids, and molars—a year
Of night terrors, when each tooth that we gain
Is purchased with spasms, congestions and pain,
Dentition is past and though fragile and thin
The infectious diseases their terrors begin.
On our epidermies an eruption appears
Which after watching and doubting and fears
The kindly old friend of our childhood affirms
Morbilla to be, and in high-sounding terms
Of diagnosis, etiology and treatment dilates:
Then a hopeful prognosis with confidence states
For under *his* care and learned reflection
There's no danger at all in the measley infection.
After fever and pain there is found to appear
Prominent lumps close under the ear.
The doctor is called, he examines the lumps,
Looks wise and profound, and firmly says, "mumps,"
And so we go through with the dreadful array
And so for the sins of our fathers we pay.
One week by pertussis we're brought near unto death,
The next dread diphtheria is taking our breath.
Varicella our cuticle disfigures to-day:
To-morrow scarlatina fills with dismay,
When we think there remains no disease to catch
The scabies appear, then, well we scratch,
Till life is a burden and though we are rich
We would gladly be poor to be rid of the itch.
Pressing onward again new dangers appear;
We daily must eat in trembling and fear;
For bacteria abound in each morsel of food
A spoonful of milk may harbor a brood.
The sparkling spring water that in childhood we quaffed
And thought for the Gods a delectable draught,
We are now told to shun with deadliest fear,
For the bacillus typhosis has made it his lair.
With apparent delight the scientists tell
The moss-covered bucket that hung in the well
That dear oaken bucket with iron bound rim
With deadliest germs was filled to the brim,
That reptiles more poison than moccasins dwell
Neath the clear limpid waters of that often sung well,
We must finish our meal while still craving more
Or the pangs of dyspepsia expect to endure.
We are chuck full of organs and each one of the lot,
Would rather its functions were disordered than not.
They claim, they have laws which if we would preserve
Our health or our lives we must strictly observe.
The brain is the king of this mutinous crew
And in sympathy shares all the mischief they do.
The least dissipation his honor offends,
And cephalalgia, the penalty promptly attends.
The lungs and the heart, the stomach and spleen
Are ever conspiring to do something mean.
And the *liver*, most malicious imp of them all,
He does nothing else but treasure up gall,
We coax him with belt, with plasters adorn,
Our plasters and belts he alike treats with scorn.
We humor with pills, with iodine paint,
He simply renews his "liver complaint."
Humor and paint and adorn as we may
He still gives us gall by night and by day,
And when he is weary of stirring up strife,
When spite of his gall we still endure life—
He doubles us up with a stone in our side,
And we frequently wish in our youth we had died.
Oh! Liver! thou cirrhotic, tuberculous fiend,
Prone to be atrophied, hypertrophied, gangrened
Respect thee we must, though we still will insist,
Of all of our organs though least would be missed.

Items of Interest.

Dr. Charles W. Dulles has resigned the editorial chair and publisher's desk of the *Philadelphia Medical and Surgical Reporter*. For four years he has exerted his talents for the higher and best interests of the medical profession, and made for himself an enviable reputation as a writer.

Depopulation in France.—To combat against the increasing depopulation in France, the Chamber of Deputies, upon the motion of Dr. Jarval, has exempted all fathers or mothers of seven children or over from payment of poll and personal taxes.—*Buffalo Medical and Surgical Journal.*

A brotherer-in-law to the famous German physician, Dr. Koch, is a convict in the penitentiary at Jeffersonville, Ind. His name is Otto Remier and he received a sentence of two years for stealing a watch at Terre Haute. He speaks seven languages, is highly educated and has led an adventurous life.

The following method for the removal of tapeworm is said to be very effective:

Fast one day, and on retiring take a couple of compound cathartic pills. The first thing next morning take a dose of Rochelle salts, and after a complete watery stool take two or three ounces of cold decoction of fresh pomegranate bark. If thrown up by the stomach, repeat the dose in a couple of hours.

The first lymph patient.—The first patient in this country to receive the lymph inoculation, died in New Haven, Conn., Feb. 2, and another lymph patient, who had been under treatment for nearly two months, was then at the point of death. The first named was a man but little over thirty years of age and was not in an advanced stage of consumption when he began receiving treatment.—*Toledo Med. and Surg. Rep.*

Prof. J. M. DaCosta has resigned the chair of practice of medicine at Jefferson Medical College which he has occupied with such honor for upward of nineteen years. As a teacher, practitioner of medicine and author, Dr. DaCosta has long stood on the top rung of the ladder in our profession. His retirement from professional labors is no doubt an act of wisdom on his part, but one which is followed by sincere regret.

An ordinance has recently been passed in Indiana which compels all railroad companies to put storm doors on all railroad coaches and street cars for the carriage of passengers, to keep the temperature from sixty-eight to seventy in the cars, and to furnish spittoons partly filled with bichloride of mercury, for the use of persons suffering from chronic cough and expectoration. This should be followed by the passage of such an ordinance in every State in the union.

If the Paris *Volitar* is to be believed, a French surgeon has made a discovery by which he can operate upon the human throat in such a manner that he can turn out first-class sopranos, tenors, baritones and bassos at will. If that be true, it will make singers such a drug in the market that opera managers can give a season of opera without having ruin stare them in the face. If some ingenious surgeon, however, could operate upon the ears of some of our singers so as to enable them to know whether they sing in or out of tune, a much greater good would be accomplished.

The number of blind persons in Russia is enormous. An official census in 1886 has established the fact that there existed in Russia-in-Europe, properly called, in Poland, and in the Caucasus, 189,872 blind persons of both sexes—94,056 males and 95,816 females; whereas there are only 188,812 blind persons in the whole of Western Europe and 22,402 only in the New World. The proportion in Russia is 21 to 10,000; it is 25 for men in the Caucasus and 14 for women. This proportion is reduced to 7 per 10,000 in Poland. Thus blindness is twice as frequent in the Caucasus

as it is in Russia, and three times more frequent in Russia than in Poland.—*St. Petersburg Letter.*

THE NORMAL MAN.—Prof. Huxley asserts that the proper weight of man is 154 pounds, made up as follows: Muscles and their appurtenances, 68 pounds; skeleton, 24 pounds; skin, 10½ pounds; fat, 28 pounds; brain, 3 pounds; thoracic viscera, 3½ pounds; abdominal viscera, 11 pounds; blood which would drain from the body, 7 pounds. The heart of such a man should beat 75 times a minute, and he should breathe 15 times a minute. In 24 hours he should vitiate 1,750 cubic feet of pure air to the extent of 1 per cent. A man, therefore, of the weight mentioned should have 800 cubic feet of well ventilated space. He would throw off, by the skin, 18 ounces of water, 300 grains of solid matter and 300 grains of carbonic acid every 24 hours, and his total loss, during that period, would be 6 pounds of water and a little more than 2 pounds of other matter.—*Clinic Reporter.*

Bitter complaint is heard from the medical profession regarding the severity of the unwritten law of professional etiquette. It is not that medical men are forbidden to advertise themselves; it is that they are constantly under suspicion of advertising themselves when they are really doing nothing of the sort. Lecturing is just now the bone of contention. If a medical man has the gift of public speaking, "on every conceivable topic," as somebody has sneeringly put it, why cannot he be allowed to instruct and entertain his fellow-creatures from a public platform? And if the committee of the local literary and scientific institute will print the name of "Dr. Abernethy Astley Cooper Jones" in big type, with a whole row of initials after it, is it fair to make him responsible for that? A medical correspondent of the *Lancet*, who from obvious motives suppresses his name, confesses to finding "intense pleasure and relaxation in addressing an intelligent audience," but he had to endure the "darts of slander." A friend of his, a medical man of similar ability and most excellent literary attainments, loved and respected by all who come in contact with him, has the fortune or misfortune to be one of our best public speakers. He can make ten guineas by one evening address, and earn as much in an hour and a half as his detractors can do in a week, but owing to the "intolerable priggish attitude" of his fellow-practitioners, he is obliged even to cease his gratuitous efforts on behalf of the churches, chapels, and local charities.—*London News.*

Wit and Humor.

Mrs. C.—"Doctor, you were at the last illness of my eldest boy?"

Doctor—"Yes."

Mrs. C.—"You also attended professionally my first husband, who died?"

Doctor.—"Yes."

Mrs. C.—"Well, my second husband is sick, and I would like you to see him through, too."

Stranger in a Kansas drug Store.—"I want to get fifty cents' worth of calomel."

Proprietor.—"Fifty cents' worth of what?"

"Calomel."

"Don't you know? What sort of a place are you keeping, anyhow?"

"This is a drug store, and if you want anything don't sling around any fancy names. Is it a pint or a half-pint you're after?"

PUZZLED.—An elderly lady who was handling a set of false teeth in a dentist's office, asked, "Can a body eat with these things?" "My dear madame," replied the consultant, "mastication can be performed with a facility almost equal to nature itself." "Yes, I know all that," answered the old lady, "but can a body *eat* with them?"—*Dental Jairus.*

"Yes," said old Mr. Jones, "the doctors are getting mighty smart now-a-days; why, they've got instruments and things made so that they can see clean through you."

"Humph!" replied old Mrs. Jones, "I don't see anything particularly smart in that. I've been married to you for thirty years, but I saw through you in two weeks after the bridal."

Mr. Jones rubbed his bald head for a moment and thoughtfully resumed his reading.

"That little boy of yours is not adapted for the undertaker's business," explained an undertaker to the boy's mother, who inquired why he had been discharged. "What's the trouble with him?" "He hasn't a realizing sense of what is due the afflicted. Day before yesterday Mrs. B. buried her fourth husband. I sent your son up to learn what hour she wished the ceremony to take place, and he asked what her regular time of day was for burying husbands. I expect to lose her custom entirely."—*Milwaukee Wisconsin.*

"Julius, I understand there's some one sick over to your house?"

"Dat's a misun'erstandin', sah."

"Why, I'm sure I saw the doctor coming away from there this morning."

"Ter be sho', ter be sho', sah, but dat's on'y in accounter Sam Hambrof dyin' dah las' evenin.' Oh, no, sah, we's all well dah, not'stanen' de doctor sah."

Young physician—"You need exercise, sir; you should walk more."

Patient—"What is your fee, young man? I walked all night, last night, with the baby."—*Record.*

A patch on a boy's trousers is something new under the son.

"Sister—"Bobby, why do you call ministers doctors?" Bobby—"'Cos they make folks better, don't you know?"

Physician (inspecting insensible citizen)—"This man has been drugged."

Officer—Faith, an' ye'er roight. I drug him meself from Casey's saloon."—*Life.*

It's called the "funny bone" because it is the point of the humerus.

Two Girls—"Please, sir, do you keep excursion pills?" Chemist (equal to the occasion)—"Yes, we have some very fast ones."—*Chemist and Doctor.*

First Undertaker—"Well, we can't complain much of dullness of business."

Second Undertaker—"No; it's true we have no cholera or yellow fever this summer, but there is a very encouraging epidemic of the mind cure in certain places."—*Life.*

"Reuben, what's optimism?" "Optimism, Hannah, is a disease of the eye, and you'll git it the first thing you know if you keep on reading that fine print."

An old Toledoan who was in San Francisco at the time of the last earthquake, when the shaking began, swallowed a couple of quinine pills at once. Force of habit.—*Pacific Record of Med. and Surgery.*

A correspondent of a New York paper asks: "Can you give a young lady a cure for malaria? She lives upon filled-in ground." "Filled-in ground" must be an unsatisfactory diet. She ought to try pork and beans.—*Pittsburgh Chronicle.*

A health writer says "the wash tub is an excellent gymnasium." But, will our young ladies take kindly to it? As Mr. Bacon says in Shakespeare's Works, "Ay, there's the rub." And Mr. Bacon generally goes to the root of the matter.—*Exchange.*

"Trampin's played out," said a sad-looking specimen of his tribe, as he hugged the red-hot stove in the station; "Trampin's no good any more, an' I'm going to change my perfeshun." "What are you going into?" I asked. "I'm goin' to be a mind-cure doctor."—*Exchange.*

The Christian Scientists would have us believe that what we call pain is merely imaginary; but hang the imagination that keeps a fellow awake all night when he has a felon on his thumb! And we don't believe it would do any more good to poultice the imagination than the thumb.—*Norristown Herald.*

"Doctor, what do you do when you have a bad cold?" "I cough, madam; I cough."

"What becomes of the old moons, pa?" "The old moons, my son? Why, they die of newmonia, to be sure."

An embankment caved in on some railroad laborers near Oil City, and the verdict of the jury was: "Died of gravel."—*Oil City Derrick.*

A folded newspaper placed under the coat in the small of the back is said to be a sure preventive of pneumonia. Now is the time to subscribe. Copies ready for mailing, five cents.—*Siftings.*

Caller (to Bobby, whose little sister died the night before)—"And so your little sister is dead, Bobby?" Bobby—"Yes, ma'am." Caller—"And already in Heaven?" Bobby—"Oh, no; she doesn't start till to-morrow afternoon, at 1 o'clock."—*Life.*

A lady living in Ohio is the mother of six boys. One day a friend calling on her, said: "What a pity that one of your boys had not been a girl." One of the boys, about eight years of age, overheard this remark, and prompty interposed: "I'd like to know who'd 'a bin 'er; I wouldn't 'bin 'er; Ed wouldn't 'a bin 'er; Joe wouldn't 'a bin 'er, and I'd like to know who'd 'a bin 'er."—*Christian Advocate.*

Dr. Spouter (who is rather inclined to talk shop)—"Did you know that mankind was subject to two thousand different diseases, Miss Debut?" Miss Debut—"Indeed! and to think there were only three or four when the doctors first began!"

Mrs. Veneering—"Really, my dear doctor, you must come to my ball. It is Lucy's coming-out affair, you know, and I shall take no refusal; none at all." Doctor Bygfee—"Well, you see, my dear madam, I am a very busy man. My time is not my own—" Mrs. Veneering—"Say no more. Include the visit in your bill. There, I shall expect you. Good-bye."—*Pittsburgh Bulletin.*

"Doctor, if a plain young man, named Blinker, calls on you to-day for a prescription, don't let him have it."

"Why not?"

"He wants something to restore his appetite, and he boards at my house."

"And, doctor, can you make this bloom again?" asked Father Time, pointing to a specimen of the vintage of 1840. "I was once a footlight favorite, and men showered me with pearls and diamonds. O, can I be young again?" she exclaimed with the fervor of a maiden of sixty-two summers. "You will be Queen of the May," responded Dr. Brown-Sequard, as he proceeded to his laboratory and slaughtered a fresh Guinea-pig.

That was not His Profession.—Mr. Van Stine: "Your friend who has just left us seems quite a pessimist, Miss Jones."

Miss Jones: "Oh, no! Mr. Wabash is an oculist, and they do say one of the finest in the city."—*Harper's Bazar.*

First young lady (examining directory in a drug store)—I cannot find the name in this directory, Ethel.

Second young lady—No? What shall we do?

First young lady—Let us go to Hudnut's drug store and examine their directory. They keep a better stock of everything.—*New York Mercury.*

"How old is Minerva?" asked Mr. Bacque Bey, raising his eyes for a moment from his piano.

"She is seven," answered Mrs. Bacque Bey, as she closed her Browning with a finger between the leaves to keep her place.

"Seven," said Mr. Bacque, musingly; "isn't it about time we were putting her into spectacles?"—*Cape Cod Item.*

"Oh, Professor," exclaimed sentimental old Mrs. Fishwacker, during a private organ recital in her new music room, "do pull out that sweet nux vomica stop once more!"

A young M. D. who was trying to establish himself in a community, met an old lady who had interested herself in the young doctor's behalf, whereupon she inquired how he was doing. "I was called out three times last night," said the young doctor. "Why, la me!" said the old lady, "I was affected just that way myself the other night, and Dr. S. gave me some powders that stopped the diarrhœa at once. Here, try one of them."

"I don't exactly understand the case, madame, but I'll tell you what I can do."

"O, what can you do, doctor?"

"I can throw the young one into fits, and I'm lightning on fits!"

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ORIGINAL ARTICLES.

A Review of Varicocele and its Treatment.*

CONTINUED.

BY G. FRANK LYDSTON, M. D.

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The treatment of Varicocele has called forth the ingenuity of surgeons in many ways and it is my desire to present as clearly and briefly as possible the numerous methods that have been suggested by various authorities.

The treatment of varicocele in its milder forms is altogether palliative—in fact in a large proportion of cases it is only necessary to allay the patient's mental annoyance by a little sound physiological advice. Instruction in sexual physiology and hygiene is necessary in all cases to keep the patient out of the clutches of the quack on the one hand and to assist in a cure on the other. The slighter grades of varix will be found to disappear on the removal of the inducing conditions. Such cases should really be termed spermatic congestion—they disappear on removal of constipation and regulation of the sexual habits. Marriage, if practicable, is the best remedy. All authorities unite upon the importance of attention to the bowels. Should the patient experience a dread of impotence, some pains should be taken to correct his morbid impression, else the prospect of matrimony is apt to be distasteful to him. In all cases, whether marked or slight, due attention should be given to measures tending to restore constitutional tone. Exercise short of fatigue, proper hours of rest, avoidance of sexual excess and the use of the shower bath are essential. Regulation of the diet and temperate habits do much to assist in a cure. In recommending exercise the patient should be warned against violent strains as tending to increase the varix and favoring hernia and hæmatocele.

If varicocele be associated with frequent pollutions or spermatorrhœa, it may be necessary to adopt some of the various measures of treatment for these conditions. If there be hypochondriasis or neuralgic symptoms it is advisable to pass a cold sound occasionally. The results of this simple measure are often remarkable, the morale of the patient being improved to a wonderful extent. This effect is due primarily to the peculiarly stimulating effect of distension of the urethra, upon the central sympathetic system, as well as to a certain moral effect. The latter effect is usually accorded too much importance, and the physiological effect incidental to the stimulation by stretching of such regions as the urethra, cervix uteri, anus and rectum is forgotten. The application of astringent ointments or suppositories to the prostate is often of great benefit.

In the correction of constipation, mild laxatives and not drastic purgatives should be given. Remedies which tend to relieve hepatic congestion or torpor are always in order. Theoretical considerations aside, there is no better remedy than minute doses of calomel. The tablet triturates of Caswell, Hazard, & Co. in doses of $\frac{1}{10}$ to $\frac{1}{5}$ gr. at bedtime are a favorite with me. One who has never used them will be convinced by their action that he has a great deal to learn regarding the use of this much abused drug. Of the various tonics, non-constipating preparations of iron, strychnia and the mineral acids are serviceable. A very satisfactory tonic is the new preparation of "the three chlorides" manufactured by Renz & Henry, of Louisville. I began using this preparation at the suggestion of Dr. J. R. Larrabee, and it deserves all that he says of it.

Remedies which are supposed to act directly upon the vascular walls have been highly recommended in varicocele. Agnew endorses ergot very highly. As far as diseases affecting the veins are concerned I have more faith in hamamelis than in ergot, but neither of these drugs is apt to produce much benefit in varicocele this is readily understood on dissection of the flabby degenerated mass of veins composing the varix.

The application of cold to the part is a time-honored remedy in varicocele; douching the scrotum with cold salt water is an excellent adjuvant to other measures in all cases but in the severe forms it is not likely to accomplish much. The addition of astringent drugs to the water used for bathing the parts is endorsed by high authority. Such a measure is a little absurd to say the least. Mechanical measures are sometimes employed for the purpose of exciting contraction of the dartos muscle in the hope of thereby impressing the varicocele. Flagellation for fifteen or twenty minutes with a wet towel or with rubber tubing has been recommended.

Support of the part by some mechanical device is the most familiar method of treatment of varicocele. A simple but troublesome method is that of the application of adhesive plaster (Morgan's method). The affected side is encircled with strips of stout plaster while the scrotum is elevated. A loop of plaster is now applied vertically over the encircling strips and through this loop a piece of bandage is passed, its ends being attached to a waistband. The varicocele is thus elevated and theoretically drained of blood. The angle produced in the efferent veins, however, nullifies the possible benefits of the method.

The suspensary bandage is an every day method of treatment, but after all it is on the average carelessly selected and still more carelessly used. Most of the flimsy devices for suspending the testes, are worse than useless. A suspensory should fit accurately and should keep the parts well up. The surgeon should not leave this to the appliance dealer, but should attend to it himself. A suspensory should be light, firm and easily adjusted. Silk and rubber tissue are too heating and not very durable, they are also quite expensive if well made. The U. S. Army suspensory known as Rawson's is superior to all others in the market. Morgan's suspensory is highly endorsed. This is laced in front. The tumor being lifted and drained of blood is placed in the bag and the laces

*Read at the Meeting of the Southern Surgical and Gynæcological Association, Nov. 11, 1890.

carefully adjusted. A form of suspensory has been recommended which is to be elevated and fastened to a waistband by a strap and buckle as described in the application of adhesive strips. To this the same objections may be urged as in the case of the plaster.

Infibulation of the scrotum has been recommended. The best appliance for this purpose is the soft silver ring devised by Wormald. This ring is covered with soft leather or rubber. The varicocele is emptied of blood and the scrotum drawn through the ring, which is then compressed to a degree just sufficient to prevent the veins from refilling. The principal objection to this appliance is the irritation and occasional ulceration of the scrotum which it is apt to induce. Few patients will tolerate it. Curling reports a case of Coulson's in which this appliance caused sloughing of the scrotum.*

Pressure upon the spermatic veins at the external abdominal ring has been recommended, the object being "to direct the blood back into other and smaller channels than the spermatic veins.†" Various trusses have been devised for this purpose. Stephen Smith asserts that this method will cure severe forms of varicocele.‡ Gant states that a truss sometimes cures, but that sometimes the veins have enlarged as a consequence of the method.§ A truss is not only difficult to adjust with the proper degree of pressure but defeats the object for which it is intended. The pressure enhances the already existing spermatic congestion, never completely shuts off the backflow of venous blood and affords absolutely no support to the weakened and dilated vascular walls. It is but just to state however that Curling and later Ravoth endorse the truss treatment.

Electricity has its advocates in the treatment of varicocele. Beyond a certain amount of circulatory stimulation induced by the faradic current, I consider electricity absolutely worthless. Electrolysis has been suggested but I should consider it not only worthless but possibly dangerous. Further experience with the method may however prove its value and safety.

Of all the methods of treatment which have been suggested, that by hypodermatic injection with various chemicals appears to me to be the most painful, worthless, illogical and dangerous. I have done very little experimenting in this direction and I have found that either the patient or myself was very glad to quit in every instance.

Ergotine,* solution of persulphate of iron, carbolic acid† and hydrate of chloral have each had their advocates and their trains of disgruntled patients. Even poor old alcohol has been appealed to for a cure, a Russian with the euphonious cognomen of Duhnovsky being the guilty party.‡

The possible dangers of the injection method are obvious: Cellulitis, sloughing, orchitis, tetanus, phlebitis and septic infection are all within the range of possibilities.

Bonnet, Philippeaux and Rigaud used Vienna paste and chloride of zinc to the scrotum to produce a radical cure, and obtained some good results.

It is not necessary to comment upon this method of aforetime.

The various palliative measures which have been suggested are usually sufficient to relieve the symptoms and prevent an increase in the size of the varix in cases of moderate severity. In the more severe cases, however, the characteristic changes in the vascular walls, due mainly to a loss of tone and connective tissue proliferation, go on and we have an increase in size of the varix with consequent aggravation of the symptoms. In the more marked cases the the physical deformity is apt to be considerable and may occasion great annoyance. Some men, however, are not hypersensitive, judging by the exhibitions which one may often observe on the street cars. During the seasons when tight pantaloons are in fashion, Comstock should be kept busy. In large varicoceles the suspensory bandage fails to prevent noticeable deformity and the consequent failure to relieve the mental symptoms is especially pronounced. In adjusting his bandage the owner of a varicocele is made painfully cognizant of his deformity. The knowledge that he is unlike other young men as regards his sexual apparatus is apt to have a peculiarly demoralizing effect. The various symptoms of a subjective character that have already been enumerated demand relief of a more substantial character than palliative measures afford. If impotency exist, the matter is of urgent importance, especially where perpetuation of family is of moment. I do not wish to be recorded as advising indiscriminate operation in varicocele, but I do claim that a certain proportion of cases demand operation. I think, moreover, that this proportion is larger than is usually believed. The dogma of infallibility which surrounds the teachings of the surgical authorities of the past with a halo of intolerance, has so far infected the practice of the modern surgeon that he usually discountenances any and all operative measures in varicocele—which in his eyes at least is a surgical *noli me tangere.* Van Buren was strongly opposed to all operative methods in varicocele, and his teachings have done much to prevent surgical interference in these cases. It is a common experience for the surgeon who is willing to operate in suitable cases, to be criticised by the majority of his brethren to whose attention the particular case chances to be brought. Most of the criticism comes from men who not only have never performed an operation for varicocele, but probable have never seen one performed. As conservative a surgeon as Segond, who claimed that in the majority of cases operation was unnecessary, said that "operation is certainly pardonable when the inconveniences of the condition are greater than the dangers of intervention."

Having acknowledged that the majority of cases of varicocele may be satisfactorily temporized with, it is certainly not overbold for one to advocate operative measures in some of the severe cases that come under our care, the more especially as operation nearly always relieves the pain which so frequently exists. If moreover, a method of operating be practicable that is perfectly safe, there can be no objection to operation even in cases of moderate severity. As Wickham remarks, "the facts prove that large varicoceles may lead to serious consequences, such as hæmatocele

*Diseases of Testis, 4th Ed.
†Agnew. Surgery, vol. II. p. 565.
‡Op. of Surg. p. 273.
§Surgery p. 1081.

*Bartarelli and Citaglia. Ashhurst 1077.
†Leonard Weber.
‡Ashhurst. 1077.

and phlebitis, spontaneous or traumatic." This point is worthy of attention in considering the justification of an operation.

The indications for operation in varicocele may be formulated as follows:

1. When the varicocele is very voluminous and a cause of marked deformity.
2. When the varicocele is very painful, or is the cause of reflex neuralgia of a severe type.
3. When aberration of the sexual function exists.
4. When irritation of the scrotum is marked and obstinate.
5. When the varicocele interferes with the occupation.
6. When the affected testicle is atrophying.
7. When the opposite testis is diseased.
8. When symptoms of mental aberration are pronounced.
9. When the varix is an obstacle to entering public service—military, naval or civil.

An operation having been decided upon it remains for us to select the method. Before advocating any particular operation I will endeavor to present briefly and fairly the principal operations, which have been recommended. The operations by castration, resection of the vas deferens and ligature of the spermatic arteries are unworthy of notice.

One of the earliest operations was that of Vidal de Cassis.* This method consists in passing an iron pin through the scrotum between the vas deferens and the enlarged veins. A silver wire is then passed along the pin outside the veins which are thus included between the pin and the wire. The wire is now fastened to the ends of the pin and the latter twisted so as to bring a certain amount of pressure to bear upon the vessels (*enroulement*). The twisting process is repeated every day or two until the veins ulcerate through and the pin becomes loose; pin and wire are then withdrawn. The veins are thus cut across and obliterated by inflammatory adhesions. This is the principle involved in all methods of deligation in varicocele. Bradley modifies Vidal's operation by using a second pin instead of a wire, thus obliterating the veins by acupressure. Markoe modifies it by dispensing with the pin and using a loop of silver wire clamped to a lead plate. The wire is gradually tightened.

Ricord's method is practically the parent of the methods of subcutaneous deligation. Two double ligatures introduced through a single opening through the scrotum. One double ligature passes above the veins (between the veins and the vas deferens) and the other below them. The loop of one ligature and the two ends of the other project at each opening. The free ends are now threaded through the corresponding loops and made fast to a small yoke provided with a screw. This is tightened from day to day and the loops thus drawn into the scrotum so as to eventually strangulate and cut through the enlarged veins. The ligatures come away in the second or third week.

Wood's modification of the Ricord operation consists in the application of a single subcutaneous ligature of annealed iron wire. The ends of the loop are fastened to a light steel spring, the constant tension of which cuts off the veins. A piece of adhesive plaster should be placed under the spring to prevent its cutting into the scrotum, and over all an antiseptic wool dressing may be applied. (DeWitt-Boyd.)

Davat's operation: This method is strongly endorsed by Agnew, who claims that he has seen no bad results from it in twenty years' experience.* According to this author none of the many imitations of Davat's operation are simpler or more permanent in results.

The hair is first removed from the scrotum. The cord is next grasped between the thumb and index and middle fingers about one inch below the external abdominal ring, and rolled about until the vas deferens has been isolated and slipped behind the remaining constituents of the cord. A stout acupressure needle is now thrust between the duct and the veins and along it is passed a needle armed with a stout, well waxed hempen ligature. This traverses the scrotum in front of the veins and passes out of the distal needle puncture. The loop of the ligature is now slipped over one end of the pin and its free ends tied over the other. The entire ligature now slips within the integument and becomes subcutaneous. A cork is now placed upon the sharp end of the pin, and the scrotum kept elevated on a small cushion. The pin should be removed on the seventh day. In this method it is not necessary to wait until the veins are cut through before removing the pin. A suspensory bandage should be worn for two or three weeks.

Bryant's method is as follows: The vas deferens is pushed aside and a stout needle armed with a ligature is passed through the scrotum beneath the veins. A needle set in a handle is next passed through the same opening and made to traverse the scrotum in front of the veins, emerging at the point of exit of the first needle. The distal end of the ligature is now threaded to the eye of the second needle and drawn back out of the wound of entry; the loop is thus made to include the dilated veins. The skin at the entrance and exit is now divided with a tenotome and the ligature tied tightly, its loop becoming subcutaneous. A second ligature is now applied above or below the first in a similar manner. The included area of veins may be divided subcutaneously if required. Of late years Bryant has not divided the veins. Great success and safety is claimed for this operation.

Erichsen's method: Erichsen makes an incision about half an inch in length in front and behind the scrotum. A needle armed with a silver wire is now passed into the anterior incision, between the vas deferens and veins and out of the posterior opening. The needle is now returned in front of the veins so that they are included in the loop of wire. The ends of the loop are now twisted so as to constrict the veins; the twisting is repeated daily until the veins are cut through and obliterated.

Gould's method is rather novel: This operation is as follows: The vas deferens and veins are separated high up; the skin is now pinched up and transfixed by a small narrow bladed bistoury or tenotome and a small opening thus made. A needle armed with stout platinum wire is now passed under the veins which are lifted out of the opening. The wire is now fastened to the ecraseur handle of a cautery battery.

* De la cure radicale du varicocele par l'enroulement, etc., 1850.

*Agnew, Surgery. Vol. II, P. 566.

The wire is heated to a cherry red heat and speedily cuts through and at the same time seals the veins. Great caution is necessary to avoid cutting the veins too rapidly and thus causing hæmorrhage. Gould reports twenty-five successful cases. The same measures of rest, antisepsis and support of the part are necessary as in other operations. The obliteration of the affected veins by the galvano-cautery, was first suggested by Dubrueil, a French surgeon.

Gross' operation: This consists of subcutaneous ligature with a stout cord or silver wire. This is passed by means of a long spear-shaped needle. Pancoast fastens the ends of the ligature to a broad button, while Gross in the original method used a compress of cork. The ligature is tightened or in the case of wire, twisted every day until free.

The late Dr. Levis advised tying the ligature over a section of stout rubber tubing to obviate the necessity of tightening from day to day. The elasticity of the tubing affords the necessary traction.

Holme's method: This involves cutting down upon the venous plexus by a very small incision and tying the veins with kangaroo tendon. The wound is then made practically subcutaneous by antiseptic dressings. The tendon is eventually absorbed.

Keye's method: This is one of the best of the subcutaneous operations. The scrotum is shaved and scrubbed first with soap and water and then with bichloride solution. A few drops of a 4 per cent cocaine solution are now injected at point of proposed puncture. Anæsthesia is not advisable as the operation is best performed in the standing position. A specially devised needle is now passed between the veins and the vas deferens high up. This is armed with an aseptic silk ligature. As soon as the needle emerges posteriorly the loop of silk is seized and secured and the needle withdrawn far enough to allow the veins and vas to come together, after which it is passed in front of the veins and out of the posterior opening. The second loop is now secured and the needle withdrawn. The free ends of the loop are now tied tightly and allowed to sink into the scrotum. An antiseptic dressing is applied and the patient put to bed. Keyes claims that ten days is the longest period of confinement to bed. One patient he claims was about in 48 hours. Weir advocates the Keyes method.

Alexander Ogston, of Aberdeen, advocates subcutaneous ligation with silk, the operation being practically the same as that of Keyes.

Henry Lee has practiced several different operations. His acupressure method is as follows: The veins are separated from the vas deferens and two pairs of stout straight needles passed through the scrotum, one needle of each pair passing between the veins and the vas deferens and the other outside the veins, which are compressed between the two. The veins are thus acupressed at two points. The two pairs of needles should be about one inch apart. The ends of each pair are fastened together by elastic bands, thus insuring continuous compression. The veins are now divided subcutaneously with a tenotome.

Should bleeding follow a third pair of needles should be introduced—below, if the bleeding be venous; above, if it be arterial. Lee's open operation consists in the excision of a section of the scrotum, the application of ligatures a short distance apart, and excision of the included area of veins. Of late, Lee has applied temporary compression; excised the desired area of veins and finished by sealing the cut ends of the vessels with the cautery. Antiseptic dressings are of course essential to success. Ashhurst has modified Lee's first method by passing harelip pins and loops of silver wire subcutaneously. The elastic bands are substituted by silk ligatures which are removed the next day.

A. E. Barker's method (so called) consists in the application of subcutaneous antiseptic silk ligatures at one or two points.

Barwell's method consists in the subcutaneous application of a silver wire in the usual fashion. The loop may be drawn into the scrotum or left outside, in either event the free ends are twisted from day to day until the wires are free, when they are removed.

Annandale's method is essentially that of Lee, with the exception that the veins only are excised, the scrotum being left intact. Howse and Banks endorse this operation.

Bogue's method consists in exposing the veins and applying catgut ligatures at various points.

Curling's method is essentially that of Davat, it differs only in the use of two pins and the division of the veins between the pins with a fine thin-bladed tenotome.

Howse's method is as follows: The parts having been shaved and rendered aseptic, an incision 1½ to 2 inches long is made over the varicocele beginning ½ inch below the external ring. The veins are exposed with as little disturbance of surrounding parts as possible. An aneurism needle armed with chromic gut is now passed at each angle of the wound, the ligatures tied and the included section of veins excised with a pair of blunt scissors. A horse-hair drain, horse-hair satures, iodoform and antiseptic gauze dressings complete the operation. The horse-hair drain is removed on the fourth, and the sutures on the eighth day. Redundant scrotum may be excised or enlarged scrotal veins tied in this operation if required. As an illustration of the variance of opinion regarding this method, Jacobson terms it the safest and best of all methods and asserts its freedom from danger,* while Holmes says that it is a severe operation which has been followed by dangerous hæmorrhage, gangrene of the testis and severe and extensive suppuration.†

Kocher ties the veins at two points and divides the veins subcutaneously. Briggs, of Nashville, practices a similar method.

Treve's operation consists in an incision one inch in length, exposure of the veins, the application of two ligatures and the excision of the enclosed area of veins. A drainage tube of small caliber, and antiseptic dressings complete the operation. This is another operation illustrating the amount of originality necessary to immortalize an operator.

Weir's method is not claimed by him to be the acme of originality. In this respect Weir differs from the majority of operators. Weir states that Gagneles was the first to practice ligation, silk being the material used. He also refers to Washburne's and Fufnell's suggestions of the use of a third wire in Wood's operation. Weir prefers the subcutaneous application of carbolized or juniperized catgut, 22 cases are

*W. H. A. Jacobson—Operations of Surgery.
†T. Holmes—Surgery.

reported, of which only six were unsatisfactory. The average confinement to bed was eight days. According to Weir, excision of the veins was first practiced by Patruban in 1870, and revived by Nebler in 1880. Following these the operation was practiced by Nicaise, Zesas, Lee and others.

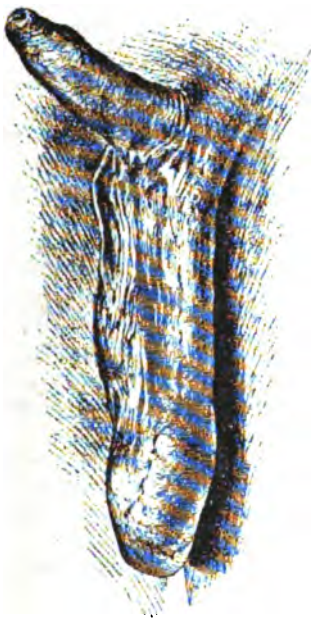
Reginald Harrison ligates the large vessels separately and cauterizes the smaller ones.

Abbe, of N. Y. has practiced resection of the scrotum with the application of several ligatures at various points in the exposed veins. He reports six cases with excellent results.

Sir Astley Cooper's operation is the parent of all operations involving excision of the redundant scrotum. In this operation a portion of the redundant tissue is grasped between the fingers and excised with knife or scissors. Hæmorrhage having been checked the edges are stitched with interrupted sutures and—nowadays—antiseptic dressings applied. Van Buren characterized this operation as the only justifiable procedure in the vast majority of cases of varicocele.

Horteloup's modification of the Cooper operation involves resection of the redundant scrotum with resection of a portion of the veins behind. This operation is practiced by De Wenter and Theophile Anger. Horteloup uses a specially devised clamp.

FIG. 1.



Case of extreme elongation of scrotum before operation. (After Horteloup.)

Andrews of Chicago is the originator of a clamp (or retentive compressor) for excision designed to obviate injurious pressure on the tissues during the operation.

Hutchinson practices the open method of deligation, Rigaud and Senn advocate the ligature, the latter tying at two points; neither of these operators excises the veins.

M. Lucas Champonniére and Le Dentu both practice scrotal resection, the former, however, using no clamp. Le Dentu excises the retro-deferential plexus.

* Mèmoire à l'Academie inédit.

Henry's operation is in my opinion the best of the single operations in selected cases. I was formerly inclined to endorse all that Henry claims for it, but

FIG. 2.

Case of extreme elongation of scrotum after operation. (After Horteloup.)

I have latterly modified my opinion and consequently my practice, as will shortly appear.

Henry's method is a systematic modification of the old-time procedure of Astley Cooper with the addition of modern aseptic and antiseptic precautions and dressing. The operation is performed with the aid of a specially devised clamp, and with a little experience is rapid and as simple as may be.

The scrotum, pubes and thighs should be shaved and well scrubbed with soap and water, followed after drying with solution of the bichloride. The clamp is then applied from above downward, care being taken to depress it well down toward the perineum and to have the raphé of the scrotum exactly in the center of the condemned portion of tissue. The scrotum is drawn through the blades of the clamp until the testes are drawn up tightly against the pubes, and the screw tightened so that the clamp firmly grasps the skin. Carbolized silk or catgut sutures are now inserted less than one-half inch apart, or a number of harelip pins passed through the scrotum just above the main blade of the clamp, about three-fourths of an inch apart, with intervening sutures. The sutures or pins having been adjusted, the redundant tissue is cut away with scissors or knife. The secondary or removable blade of the clamp is now removed and the sutures loosely tied. The entire clamp is now removed and as soon as all hæmorrhage has ceased the sutures are permanently tied and antiseptic dressings applied. There are some details which I consider all important that will be mentioned later on. There is one point upon which Henry insists, in which I endorse him most heartily, viz.: "there is more danger of taking away too little than too much scrotum." I will add that in my opinion it is well nigh impossible to get away too much tissue where the clamp is used. An important feature of the structure of this region is the readiness with which the integumentary tissues of the inner aspect of the thighs may be drawn over, thus assisting in forming a covering for the testes. The operation of

resection in suitable cases is followed by relief of pain, and an improvement in the consistency and volume of the affected testis. Wickham claims that he has relieved pain by resection after Vidal's method had failed.

Wickham, of Paris, uses Horteloup's modification of Henry's clamp which is intended to accurately indicate the proper line of incision. This clamp has a semicircular form in the middle of the blades. I do not like this device as well as that of Henry. Henry's operation may be modified by the use of the quilled or shotted suture if the operator so chooses.

Fig. 3.

Varicocele 7 years after resection of scrotum.

As an illustration of the extreme degree of elongation of the pendulous scrotum and the large amount of tissue requiring removal in some instances, I append cuts of one of Horteloup's cases before and after the operation of resection. (Figs. 1 & 2.) There is one fact which to me appears very plain from these illustrations, and that is that insufficient tissue was removed. I should be greatly pleased to know the condition of this patient some years after operation, for in cases with such extreme elongation of the scrotum there is a marked tendency to recurrence, if resection alone be depended upon. In my own cases the testes of recurrence after operation were drawn up very snugly and the scrotum did not approximate so nearly the contour of the normal scrotum as is seen in the appended illustration of Horteloup's case after operation.

I greatly regret my inability to present illustrations of several of my cases of resection of the scrotum showing their condition some years after operation. It might be urged that I did not remove sufficient scrotum as an explanation of the recurrence in my cases. I have elsewhere expressed myself upon this point. I have the good fortune to possess a photograph of a case in which a surgeon of national reputation performed scrotal resection seven years ago. This surgeon reported this case as radically cured. The cut herewith appended casts an element of doubt upon the claims of the operator—a doubt which approximates conviction in the mind of the patient.

Reflex Neuroses.

A paper read before the Military Tract Medical Association at Bushnell, Ill., Oct. 22, 1890.

By Louis Becker, M. D.

The world has always been led by fashion, and this is especially true of the medical world. A few things we do know, it seems, too surely to ever have them subject to change at fashion's command, but how few they are! Facts which are the foundation of medical science one year are disrupted and thrown aside as spurious the next.

Just now fashion is reveling in the realm of "disease causation," and her whole trend is toward simplicity. Just as style in clothes swings from the extreme of show to the barest simplicity, so style in ætiology has swung from the elaborate, painstaking summing up of an infinity of causes to the mere naming of a minute, microscopic organism, the very soul of ubiquity, the very essence of the medicine of today.

This is all very good. If the *bacillus tuberculosis* is the universal cause of that dread disease, we have made a wonderful advance. But in doing so we have been sacrificing our reasoning powers somewhat, for now we are riding that hobby "oneness of causation." Just now "Reflex Neuroses" are suffering from this fashion.

Bosworth says he has "never known a case of asthma to occur in other than an obstructed lesion of the nose or upper air passages." Stevens cures the great majority of cases of chorea and epilepsy by cutting one or other muscles of the eye-balls. Battey cures his hysterical patients by removing their uterine appendages. Otis, Sayre and others cure numerous nervous manifestations in boys by cutting a tight prepuce if they have one. The uterus has had so many reflexes piled on it that I am convinced it has often prolapsed out of sheer disgust at the load which it has been compelled to bear, while that will-o'-the-wisp neurasthenia has at some time or other been thrown on almost every organ man possesses. We laugh at the hair-splitting logic of the lawyer, but a modicum of just logic would do the profession good.

What is a reflex?

"The essence of a reflex consists in the transmutation by means of the irritable protoplasm of a nerve cell, of an afferent into an efferent impulse." (Foster).

Physiologists lay down a number of propositions in regard to reflexes.

1st. The intensity of the efferent impulse depends chiefly on the events which take place in the nerve cell. That is, a slight irritation may give rise to a strong impulse.

2d. It also depends on the intensity of the afferent impulse. Under the same conditions the stronger the afferent impulse the stronger the reflex response.

3d. Reflexes are purposive in character. If we hang up a brainless snake and lightly touch the tail with the finger, it will bend toward the finger; but if we burn it, it will turn away. Certain afferent fibers seem to be closely associated through certain nerve cells with certain efferent fibers, but this track may be changed when the impulse seems to call for it.

4th. When a single impulse, too weak to cause a response, is continued it will soon cause violent

reflexes. Thus seemingly the impulses are stored up until they reach a certain point and then they explode.

From these fundamental propositions physiologists have deduced this theory in explanation of reflexes. "Reflexes follow the path of least resistance." This theory lies at the bottom of all our knowledge on this subject to-day and by it alone can we explain the numerous curious phenomena common to reflexes.

Under the usual circumstances a reflex will follow a certain definite course through an afferent fiber to a nerve cell or collection of nerve cells to an efferent fiber. If for any reason this path is closed or the nerve cell is already occupied with another impulse, either there is no reflex response or if the impulse is very strong it finds a new path and another action results. Thus, if we touch the right flank of a headless frog with acid the right foot will soon be raised to brush it off. If, however, the right foot is held, the left foot will be used. Thus the usual reflex being prevented the impulse was strong enough to find itself a new path. Again, section of a lateral half of the cord causes, roughly speaking, loss of sensation on the same side and of motion on the opposite side. But, without union taking place, these lost functions will soon be restored. If now we make a section of the other half higher up we will have the same phenomena reversed and without either section uniting the functions will soon again be restored. That is, we have twice cut off the usual path but a new path has soon been found. Again, and this is most important pathologically, an irritable nerve cell is more easily excited to discharge than one in the normal condition and this will of course change many of the paths of least resistance. For an impulse which usually travels through a certain cell may find this excitable cell more easily discharged than the one it usually passes through and so be "switched off" so to speak. A toxic dose of strychnine so exalts all the nerve cells that a single breath of air will often cause a violent convulsion. A single group of cells may be in the same manner exalted.

In disease reflexes conform to this same law and follow, as in health, the path of least resistance. If there is for any reason a highly excited group of cells, a peripheral irritation may be "switched off" into a new reflex.

Of what practical benefit is this theory? Asthma, according to our best authors, is a neurosis. Back of it is a group of excited nerve cells which offer less resistance to afferent impulses than normally, and any irritation which finds here its path of least resistance will cause an attack. Can we then, as some justly celebrated specialists have done, lay every attack of asthma to some trouble in the nose (hypertrophied turbinated bodies, hyperæsthetic areas, etc.). An indigestible meal has precipitated many attacks, because the irritation caused finds in the excited cells the path of least resistance. An overworked and excited brain, overloaded bowels and a number of other peripheral irritations may find in these cells a path of least resistance. Asthma is undoubtedly often caused by nasal troubles and is often benefited, at least temporarily, by their treatment, but *it is not always so.* The fact as pointed out by Beverly Robinson, that many cases of asthma so cured will after a time have a renewed attack, shows that in removing nasal obstructions we have removed only one source of the trouble and that after a time another irritant will cause a renewed attack. This illustrates perfectly the fact that if the usual irritant fails another may follow the path before laid out. Robinson also cites many cases where asthma and nasal troubles coexisted and operative interference has entirely failed to benefit, thus showing that some other irritant had caused the trouble. If this is true then we are not warranted in indiscriminately burning and sawing our patients noses.

Infantile convulsions are in one sense reflex neuroses. Very often they are the results of indiscretions in diet. They may be caused by the ubiquitous worms of our friends the "old ladies." A tight prepuce may cause them, and so on *ad infinitum* almost. Some New York specialists of note tell us that in infantile convulsions or other serious nervous manifestation in a male we should examine at once for a tight prepuce and if we find it, cut it off. I contend that this direction is by far too general and if followed will do great harm. Not that convulsions never result from a tight prepuce, but that a boy may have ever so tight a prepuce and have convulsions, and still the former not be the cause of the latter. For instance, the worst case of convulsions it has been my misfortune to see was very clearly caused by an overdose of fried potatoes and was relieved by their evacuation. Now I know of no law, physical or otherwise, by which a boy with a tight prepuce might not eat an overdose of fried potatoes and have convulsions as a consequence. In such a case an operation would only add fuel to the flame. We have all seen boys with tight prepuces who seemed to be exceedingly healthy.

So Stevens cures all cases of chorea and epilepsy in which there is muscular insufficiency of the muscles of the eyeballs by tenotomies of those muscles. But while this may be one cause of those dread diseases it has been proven by Roosa that perfect equilibrium of the ocular muscles is by no means common even in health, and the failure of the operation under accurate test shows that this condition may also be present in chorea and epilepsy and still bear no causative relation to these diseases.

Battey cures intractable cases of hysteria by castration but the last number of the *N. Y. Medical Record* would seem to withdraw that also from the list of specific causes. And so on *ad infinitum ad nauseam.* We are so wrapt up in the idea of relegating chorea to one cause that we forget there is such a thing as logic, and if we happen to cure one case or more by tenotomies, away we go pellmell. Every patient that jerks has his eye-muscles cut until sad experience brings us to our senses and we lose in the reaction what little of good there is in the operation.

It is time to call a halt. We cannot run thus blindly. Widely different impulses may under differing conditions, by following this "path of least resistance" cause a precipitation of the same malady. We cannot implicitly follow the lead of one who says, "Given a certain reflex neurosis I refer it to such and such a cause." Many of our best men are recognizing this. Goodell points out that many so-called uterine symptoms are only occasionally of uterine origin and says that even when there is uterine trouble there is very often no connection between the two. In short he reiterates the fact, which we of the medical profession learn so slowly, that the presence

of two disorders in the same individual does not necessarily imply that they have the relation of cause and effect.

So Beverly Robinson has very clearly refuted the extreme views of Bosworth as to the causation of hay fever. And so through the domain of reflex neuroses we have been sacrificing truth to simplicity. Two and two make four, I'll admit, but let us be very sure that one of the "two's" is not one and a half.

Briefly stated, then, my thoughts are these:

1st. Reflexes follow the path of least resistance both in health and disease.

2d. As a consequence, given a tendency toward a certain neuroses there is only needed a peripheral irritation which can find in these excited nerve cells a "path of least resistance" in order to precipitate the trouble.

3d. It is highly *im*probable that in any given neuroses we can say that a certain irritation is the sole cause, for it is equivalent to saying that *only* this irritation can find in the excited nerve cells mentioned a "path of least resistance."

What are we to learn from all this? That we cannot with safety jump at conclusions. That before radical measures are taken which, if taken on wrong premises may do much harm, we are to investigate with the utmost thoroughness for other sources of irritation. In short, we must get thoroughly a true idea of cause and effect.

Two Interesting Cases.*

By Chas. W. Hall, M. D., Kewaunee, Ill.

In presenting these cases I hope to speak of something new and instructive.

The cases are of everyday occurrence, hence their practical interest.

The first case is one of intestinal obstruction in which the obstruction was overcome by means of a stomach pump, with recovery, and the second case that of a fearful burn covering over one-half the body, treatment most simple with recovery of patient.

Case of Obstruction of Bowel. Recovery.—About midnight of Tuesday, July 22d, J. H., a boy of 14 was taken with severe crampy pains in his bowels, soon followed with vomiting and purging. The pains were very severe for about two hours when they slacked up some—vomiting ceased and the diarrhœa stopped, but a constant desire to evacuate remained; early the next morning they sent for a doctor who administered a dose of salts and left some powders for his vomiting which returned at intervals. He seemed easier till the day following, Thursday, P. M., when the tenesmus became more intense. Friday morning I first saw the case and as soon as I saw the pinched anxious expression of his face I was convinced it was no ordinary case of cholera morbus. On examination found a pulse of 115, temp. 103°, skin dry and hot, respiration quick, tenderness over abdomen—especially in right iliac region the place we all feel of first when we suspect any obstruction. I found what I took to be a tumor, rather indistinct but little pressure on it elicited great pain; at this time the tympanitis was slight. I was almost positive of intestinal obstruction near the ileo-cecal valve but I withheld my diagnosis until I was confident. I at once set to work to get a movement of the bowel, as the patient told me he had been eating heavy with more or less constipation till the diarrhœa set in Wednesday morning early, he thought only a small part had passed away in the diarrhœa, it being nearly all water which passed. Gave glycerine injections high up the bowel, gave castor oil by the mouth but no medication was possible that way on account of the extreme nausea. The enemata were of no avail, nothing seemed to do the work, a little mucus streaked with blood only passed. I put him on morp. ½ gr. and atropine $\frac{1}{75}$ gr. hyperdermically and held him there by repeating this as necessary. Saturday morning no better. Again tried enemata, no result, then told parents the result would probably be fatal, all conditions gradually growing worse.

Sunday a. m. saw he was passing into a collapsed condition, pulse nearly gone, skin cold, stupor deepening. Sunday, p. m. took a brother practitioner down who agreed with me in diagnosis and gave the boy 48 hours to live. I thought myself the time was plenty long. Tympanites by Sunday was quite pronounced. Monday morning found him as near dead as a person could be and be alive; abdomen so distended he could not breathe except when propped up with pillows, skin perfectly cold. I had asked to perform laparotomy, parents declined, so I decided to see what I could do with a stomach pump inverted; this was spoken of the afternoon before. The only tube I could get was a fountain syringe tube and I lubricated this with goose grease and passed it in about 2½ feet, could get it no farther. Then I used this instrument as follows.*—(Describe action). No result at four p. m. that day Monday—five days after first pain I again passed the tube and I found I could pass it little over 4 feet. There seemed to be less resistence to passing of tube, probably because patient was more moribund. I felt an obstruction to its further progress. Patient told me he could feel end of tube on right side lower down, so I concluded I was somewhere near seat of trouble. I put on firm pressure, but could not throw in much fluid; while I was thus forcing water in, a distinct report was heard all over the room and persons in the next room heard it. I thought at once that I had bursted his bowel by overdistention. I dropped the syringe and went to his pulse to watch for total collapse, but it did not come. After waiting 5 minutes I went again to syringe and imagine my surprise to find the resistance to the forcing of water had disappeared. I immediately reversed the engine and to hear the air come out was indeed music to my soul. Relief came at once. I threw in glycerine and water and had a movement of bowels soon. The recovery was slow; food liquid, and after bowels had moved gave enemata of water which seemed to draw wind thoroughly.

2d Case One-Half Surface of Body Burned. Recovery.—Before reporting this case I want to remind you gentlemen that there is no class of cases either in

* Read before the Military Tract Medical Association at Bushnell, Ill., Oct. 21st, 1890.

*The instrument used was a combination instrument made by Huston Bros., Cor. Adams and Peoria Sts., Chicago. I used the stomach pump attachment and after forcing in the fluid as you would to wash out the stomach, I reversed the instrument and then drew it all out as is done with a stomach pump. It was when forcing in, the report came and in pumping out there was fæcal matter came as well as great quantities of gas.

medicine or surgery where as little progress has been made as in that of burns and scalds. This should not be so, for we know they are not only of frequent occurrence but are attended with the most excruciating pains the human body has to endure. The death rate also is exceedingly high.

Oct. 28th, 1889, Fannie H., aged 23 was burned. Family history bad. Father died of consumption. Mother in poor health, patient herself weakly. She was burned while making apple butter, the fire was out of doors and a brisk wind was blowing. The clothes took fire from the back and before fire could be extinguished she was nearly naked. Was saved by being thrown in large stock watering tank. She was seen in half an hour after accident and found in the collapsed condition expected in that class. Gave brandy, quinine and ammon. carbon. Reaction began to show itself in two hours. The surface burned was from top of shoes to neck band of dress. Not a particle of cuticle left except a small place upon back where the bustle protected it; that portion was 2x¾ inches. The gluteal region as well as the calves of the legs was burned deep, the rest was superficial as there was no deep tissue to destroy over part of burnt surface. The spinous processes of vertebral column were bare in four places. The right arm from middle of deltoid to the ends of fingers deeply burned, and even the nails were destroyed. The left arm from elbow down all burned. Other smaller burns were scattered, as one 2x5 inches over anterior part of thighs, also upon chest and three places across abdomen. Here was a case with one-half of surface burned over. The first dressing used was the old antiquated charron oil (lime water and linseed oil) and not having sufficient absorbent cotton, cotton batting was substituted. On evening of second day the odor was so bad and septicæmic symptoms appearing we undertook to raise a part of dressing on lower part of spine to allow drainage. The very act of trying to raise it sent her into convulsions. This had to be removed or she would die of septicæmia and it seemed as though the removal would kill her through nervous shock. After a terribly trying time it was removed little by little. We then asked ourselves the question, what is to be accomplished by treatment? What are the indications? A dressing to exclude air, and one indistructible in oil, transparent and easily removed.*

This paper which I now show you was hit upon and used and we believe all the indications are met better than with any other treatment you have heard of or at least we have heard of. It was soaked in oil over night and applied to burnt surface as fast as the first dressing could be removed. Vaseline, cosmoline, coca butter, raw linseed oil were all tried, but goose oil proved the most lasting and gave the greatest relief. Let this paper remain on until the excretions loosen it up, then it comes off without feeling and a new piece cut to correspond is reapplied. Being transparent could see plainly how granulations were progressing over any part, thereby doing away with unnecessary irritation. Should any unhealthy granulations appear, removed paper and sprinkled on little iodoform or bis. submit, calomel proved efficient after all other reputed remedies failed. One of the most trying complaints is the intense itching, relieved this by sol. cocaine, applied with camel's hair brush. By merely brushing over paper with a stiffer brush gave great comfort. At end of 4th week loss of sight took place, could not see a hand placed in front of face and for 4 days could not tell night from day. This being considered a sympathetic condition of optic nerve, put her on Fowlers sol. v gtts, and sol. strych 1-32 gr. in syr. Hypophosphites. Increased this till in six days she took 1-12 gr. strych. four times a day with Fowler's sol. x gtts. with no twitching of muscles or other toxic effect. Her sight improved and in two weeks could see some objects. Then added a teaspoonful of water each time a teaspoonful of medicine was given, so she was reduced in dose almost imperceptibly. At end of 8 weeks could kneel on carpet. Had lain on her face all this time. In 11 weeks could stand alone. In 14 weeks could sit down partially. Recovery in about 7 months.

We claim the following for this form of dressing: It is light, easily applied and removed. Impervious to air. Indestructible in oil, transparent and more nearly resembles nature's covering in a blister than any other dressing we know of.

Additional treatment as needed—

For suppression of urine—Potass. Bicarb. and Acet. and Uva. Ursa.

For drawing water—A catheter was necessary. Three weeks.

For bowels—Injections.

During latter stage of sickness merely brush the goose grease on paper just before applying, found it did as well as soaking over night.

*This paper is used by merchants for covering butter and lard and is known as "waxed paper." Is very easy to procure. It answers all the indications of oil silk, but is preferable because when a piece is soiled it can be thrown away without causing a financial panic in the doctor's pocket book.

Insanity.

By Dr. S. B. Buckmaster.*

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The erronous and cruel belief, so generally prevalent that insanity is a disgrace not only to its unfortunate victim, but to the family as well, has worked great injury to many, and should be earnestly combated.

It owes its origin to the dark days when insanity was believed to be a mark of the displeasure of the Almighty, or that its victim was possessed by devils, and deserving of no consideration or kind treatment.

Now that we fully understand that it is the result of disease of the brain, the organ through which the mind manifests itself and therefore from purely physical ailment, its presence should not be considered any more disgraceful than unfortunate illness from disease of any other organ of the body.

It is a disease against which none of us can be assured, and which impartially selects its victims from the most exalted to the lowliest, and has undoubtedly been a great factor in the making of history.

The student of human nature finds many results coming from certain phases of human thought and action that can be traced to their original inception in disordered minds and which have greatly influenced subsequent history.

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Many men have lived so near the illy defined border line between sanity and insanity, that their mental instability has acted as a stimulus to great thoughts and actions.

Dryden says:

"Great wits are sure to madness near allied,
And thin partitions do their walls divide."

Plato puts these words into the mouth of Socrates: "The greatest blessings we have spring from madness, when granted by divine bounty, for the prophets at Delphi and the priestesses at Dodona have, when mad, done many and noble services for Greece, both publicly and privately, but in their sober senses, little or nothing."

And Aristotle, the peripatetic pupil of Plato says: "All who have been famous for their genius, whether in the study of philosophy, in affairs of state, in poetical composition, or in the exercise of the arts have been inclined to insanity."

Plato makes Socrates say; (how much is to be credited to the latter and how much to the former we do not know, for as Emerson remarks "Socrates and Plato are the double star which the most powerful instruments will not separate")—"There are different kinds of unsoundness of mind. Those who are afflicted by it in the highest degree are called mad. Those in whom it is less pronounced are called wrong headed or crotchety, or as persons fond of smooth words would say, enthusiastic or excitable. Others are eccentric. All the kinds of unsoundness of mind differ from one another, just as diseases of the body do."

Whether the prehistoric man suffered from this disease or not is beyond our knowledge, and it is unknown to us whether that wonderful people, the ancient Egyptians, were subject to it, though intemperance, lasciviousness, poverty, etc., were all present with them and it is fair to assume as a natural result insanity also existed.

Much of ancient literature has been lost to us (the great library at Alexandria listed 146 of the works of Aristotle alone of which not a vestage remains), but in what we have are many references showing entire familiarity with it as a disease.

Strangely enough the ancient Greeks and Romans recognized it as an ailment of a physical organ, and Hippocrates and Galen wrote intelligently about it.

During the following ages, however, when the gloomy cloud of superstition shrouded the world the unfortunate insane were considered as being bewitched or possessed of devils and treated accordingly.

Dr. Maudsley, in an address before the psychological section of the British Medical Association, speaks of the insane during the superstitious middle ages, as follows: "If the ravings of the person took a religious turn, and his life was a fanatical practice of some extraordinary penance—if, like St. Macarius, he slept for months together in a marsh exposing his naked body to the stings of venomous flies; or like St. Simeon Stylites, he spent the greater part of his life on a pillar sixty feet high; or like St. Anthony, the patriarch of monachism, he had never, in extreme old age, been guilty of washing his feet—he was thought to have reached the ideal of human excellence, and was canonized as a saint. More often his state was deemed to be a possession by the devil or other evil spirit, or the degrading effect of a soul enslaved by sin."

The Bible mentions several cases of insanity, one of the earliest known being that of King Saul "who stripped off his clothes also and prophesied before Samuel in like manner, and lay down naked all that day and all that night, wherefore they say 'Is Saul also among the prophets?'"—(I. Samuel, chap. XIX., verse 24.)

King David simulated insanity when fleeing from Saul's wrath, "and he feigned himself mad in their hands, and scrabbled on the doors of the gate, and let his spittle fall down upon his beard."—(I. Samuel, chap. XXI., verses 12-13.)

Jeremiah the prophet took a linen girdle, put it about his loins, went a distance to the Euphrates, hid it in a hole in the rock and after many days went after it and found it rotten and "it was profitable for nothing."

Ezekiel took a tile and portrayed the city of Jerusalem upon it, laid siege to the city upon the tile, built a fort against it, set a camp about it, cast a mound against it, with battering rams round about; he set up an iron pan as a wall of iron between him and the city, and laid siege to that, lying on his left side three hundred and ninety days and upon his right side forty days, bearing the iniquity of the house of Israel and Judah.—(Ezekiel chap. IV.)

Nebuchadnezzar, king of Babylon, "was driven from men, and did eat grass as oxen, and his body was wet with the dew of heaven till his hair was grown like eagle's feathers, and his nails like bird's claws."—(Daniel, chap. IV., verses 30-33.)

Secular history from remote times, abounds with references to insanity.

Homer tells us of Bellerophon who attempted to soar to Olympus on the winged horse Pegasus, that

"Hated of all the Gods
He wandered indeed alone over the Lycian plains
Eating his own heart, avoiding the footsteps of men."

One of the lost plays of Sophocles described the simulated insanity of Ulysses when summoned to the Trojan war by King Agamemnon.

Sophocles also represents the great Ajax as becoming insane when the arms of Achilles were awarded to Ulysses, and in his mania he killed the cattle of the Greeks, thinking them his enemies.

"He fell on, and all around
He smote the horned host, and now it seemed
That here he held, and with his own hands, slew
The two Atridæ; then on other chiefs he fell."

In his tradegy of King Œdipus, Sophocles describes the madness of that king.

Sophocles himself was accused of insanity by his own sons who wished to relieve him of the management of his own affairs.

Euripides tells us how Hercules became insane and killed his wife and three children while delusional concerning them, and how when he recovered remorse led him to sell himself for three years as a slave to the Queen of Lydia.

Orestes, son of King Agamemnon, Althamas, King of Bœotia, Alemæon who led the Epigoni against Thebes, Thrasyllaus of Athens are all described as insane by the ancient tragedians.

Aristophanes introduced an insane man into his comedy of the "Wasps" who "loves the law courts more than mortal man did before him," and tells us the treatment adopted by his son who "sought to make him stay at home, by using moral suasion and

failed, then had him bathed and purged, but all was unavailing."

The "father of history," Herodotus mentions the insanity of the cruel King of the Medes and Persians, Cambyses, son of Cyrus the Great, and of Cleomenes, King of Sparta, who committed suicide.

Cicero speaks of insanity as does Seneca, who said, "We say that every fool is insane; we do not, however, attempt to cure them all with hellebore, but trust many to vote in our assemblies, and to exercise magisterial jurisdiction," which last statement he verified with his life, his insane pupil, the Emperor Nero condemning him to death.

The Emperor Caligula who wished that the people of Rome had but one neck that he might sever it at one blow, was cruelly insane as were others of the Roman rulers.

Epilepsy which so often leads to insanity, claims many noble victims.

Plutarch tells us that at the battle of Thapsus where Cæsar defeated Scipio, Cæsar "was taken with his usual distemper just as he was setting his army in order. He perceived the approaches of it, and before it had too far disordered his senses, when he was begining to shake under its influence, withdrew to a neighboring fort where he reposed himself."

Mahomet was an epileptic, and to the hallucinations experienced by him is probably owing a religion which might have been the dominant one of the world had it not been for the defeat of the Saracens by Charles Martel, and which now after almost thirteen hundred years has one hundred and sixty millions of devout, fanatical followers.

Mahomet said: "Inspiration descendeth upon me in one of two ways, at times it affecteth me like the ringing of a bell penetrating my very heart, and rending me in pieces, and this is which grievously afflicteth me."

John Bunyan, author of "Pilgrim's Progress," used to pray to the parish bull, to trees, etc. "Hideous forms floated before him. Sounds of cursing and wailing filled his ears. He was haunted by a strange curiosity about the upardonable sin, and a desire to commit it."

Ann Lee, mother of the Shakers, is said to have been an epileptic.

In the Century Magazine for February, 1891, Talleyrand tells us of Napoleon: "The emperor fell to the floor. He scarce had time to tell me to close the door. I tore open his neckerchief as he seemed to be suffocating; he did not vomit; he groaned and foamed at the mouth. He had something in the nature of a convulsion, which ceased in about a quarter of an hour.

The great English philosopher, Sir Isaac Newton, suffered from mental aberration. He wrote to a friend: "I am extremely troubled at the embroilment I am in, and have neither ate nor slept well this twelve months, nor have my former consistency of mind."

Dean Swift was also insane, and though seemingly demented long before death, he still retained some of his wonderful power of sarcasm, as the following quotation shows:

"The Dean in his lunacy had some intervals of sense, at which his guardians or physicians took him out for the air.

One day he observed a new building and asked its purpose, and was told it was a magazine for arms and powder for the security of the city, upon which he remarked he would make an item of it, and wrote in his pocket book these lines said to have been the last ever penned by him:

"Behold! a proof of Irish sense,
Here Irish wit is seen!
When nothing's left that's worth defense,
We build a magazine."

Swedenborg who was called "one of the mastodons of literature, not to be measured by whole colleges of ordinary scholars," wrote this in his diary, "I had troublesome dreams about dogs that were said to be my countrymen, and which sucked my neck without biting." Some of his dreams he described as ecstatic visions of bliss in which he feels himself in heaven; others are distressing visions of temptations, persecutions and suffering; while others are filthy details of obscenities.

Jean Jaques Rousseau was insane, and of the great English lexicographer, Dr. Samuel Johnson, Dr. Blansford says: "His mental condition at times verged upon insanity to say the least of it."

Cowper, author of "John Gilpin," and other delightfully humorous poems, was a victim of the deepest melancholy most of his life.

The poet Coleridge was a melancholic opium eater, and his friends, the humorous Charles Lamb and his sister Mary, were both insane, the latter killing their mother during one of her maniacal attacks.

Prince Orlof, favorite of the Empress Catherine II. of Russia, whose husband the Czar, Peter the Third, Orlof is said to have strangled with his own hands, became wildly insane.

Germany, Spain, France, England, Portugal, Denmark and Sweeden have all been ruled by insane monarchs.

Wenceslaus, Emperor of Germany and King of Bohemia, was insane for years.

As was said of that "gentle knight," Don Quixote, "the sweet bells of his intellect are jangled and out of tune," so could it be said of Charles VI of France, who was the victim of mental alienation for thirty years.

His grandson, Henry VI, King of both England and France, entirely lost his reason, as did Joan the Mad, Queen of Spain and the Indies, daughter of Ferdinand and Isabella (who's mother was also insane) who for almost fifty years was immured in a dungeon by her son, Charles V.

Eric XIV, of Sweden, inherited insanity from his mother and spent the last years of his life in confinement.

Christian VII., King of Denmark, grandson of George II, of England, for thirty-four years preceding his death, was insane.

Maria, Queen of Portugal, suffered from insanity.

George III, of England, recovered from four attacks but the fifth and last one continued for ten years before his death.

Carlotta, widow of the Emperor Maximilian, executed in Mexico, in 1867, King Ludwig of Bavaria, who committed suicide a few years ago, and the present king, Otto, are the last who bring up the rear of this mournful procession of royal personage who have

"Eaten of the insane root,
That takes the reason prisoner."

Who can estimate the influence the reigns of these royal rulers had upon their people and following gen-

erations, and the great effect upon the subsequent history af mankind?

Following the insanity of Charles VI., came the English encroachments on France, and the civil "War of the Roses," which devastated England so many years, was the result of the mental weakness of Henry VI.

Undoubtedly the decadence of the great power of Spain is at least in part owing to the insanity which so thoroughly permeates her royal family.

In conclusion permit me to repeat that insanity being the result of disease of a physical organ—the brain—its victim and his relatives should not feel it as a deep disgrace and the poor unfortunate should have our deepest sympathy and meet with nothing but the kindest consideration and treatment from all with whom he comes in contact.

A VISIT WITH MR. BENNETT MAY.

A Case of Cholocystotomy and a Case of Nephro-Lithotomy.

By Fred Byron Robinson, M. D., Chicago, Ill.

Birmingham, England:

Practical experience in operative procedures on the kidney and gall bladder are yet somewhat rare to many surgeons. The following two cases which occurred in the practice of Mr. Bennett May will be of interest to those engaged in the same work. I will simply report some of the salient features which enable one to come to a conclusion to interfere surgically in such cases.

The first case was that of a man aged 45 on whom Mr. May did cholocystotomy. The man was admitted to the hospital June 6, 1891. He was a packer. March 1st, 1891, he became ill, lost appetite and strength and felt very weak. *He had chills.* Next evening went to bed and at 10 P. M. was seized with *violent pain in right hypochondrium* with fainting and bilious vomiting. The pain was severe and griping, grew less but did not disappear until a week ago, (lasted, then, nearly three months). Since the first attack he has had three similar attacks. But the last three attacks terminated in vomiting and relief of pain. *Jaundice* followed each attack beginning the next morning and lasting two days. Fæces were at times light colored but were not examined the last attack. Constipation was always present during and after each attack. In July of last year he had a similar attack lasting three weeks with only one attack of colic, less intense and not followed by jaundice, but was constipated. Since illness last July there have been no symptoms. Mr. May kindly asked me to examine this man at his clinic where he came before entering the hospital. He looked a little ill but not profoundly. He could say that the pain was in the right hypochondrium. I could detect an ill-defined swelling in the region of the border of the liver. It felt hard and was spread over an area as large as the palm of the hand. He was not very tender at this point. It was positive that one could not feel the gall bladder with sufficient distinctness to diagnose it. We talked over the case and came to the conclusion that it was either gallstones or a malignant growth. The jaundice with repeated attacks of pain in this distinct region and no marked cachexia pointed to gallstones but the broad based, immovable, large swelling, ill-defined and unyielding pointed to malignancy. About a week after Mr. May invited me to an exploratory operation on the patient.

It was a most interesting and instructive operation. Mr. May made an incision on the outer edge of the right rectus abdominalis muscle and directly over the gall bladder. There appeared terrible obstacles in this operation. I wish some of the over enthusiastic young operators who have such a perspiring aspiration to do abdominal sections could have seen the grave difficulties with which Mr. May met in this patient. The whole deep structures for inches adjacent to the gall bladder was simply a solid mass of old inflammatory tissue. Any recognizable landmark to guide to the gall bladder could scarcely be found. In fact, after getting into the peritoneum Mr. May could only say that he thought it must be a malignant growth.. Almost any young operator or inexperienced surgeon would have quailed under the formidable adhesions and left the operation unfinished. But Mr. May worked on through the thick, dense inflamed tissues until he said he thought it was not malignant but the product of years of inflammatory exudates. Finally he pushed a needle deep into the structures which ought, from position, to be the gall bladder and the needle struck something which grated. He then cut down on the side of the needle to the point of grating, when by enlarging the wound and by the aid of a little scoop he got out about a dozen small gallstones. Now, the wall of this gall bladder was I should say, at least an inch thick—a solid mass of inflammatory products. The gall bladder could not be moved out of its bed. Its interior cavity was but a little pouch which the end of the finger filled. Mr. May drained the bladder by a large and small rubber tube. He closed the wound by stitching the peritoneum to the edge of incision of the gall bladder. The rubber drain tubes were held in position by stitches as when they drop out it is frequently difficult to reintroduce them. At present writing the man is doing excellently.

The case of nephro-lithotomy is also of rare interest to the abdominal surgeon. The patient was a boy aged 17. A little over a year ago he began to complain of pain in the right lumbar region but no notice was given to it as it was thought to be rheumatism or a strain. A year ago the boy began to have pus in his urine. He would be ill occasionally and have this distinct lumbar pain more marked. Every few weeks he would be in bed a few days. Some six months ago he was very ill and a "lump" appeared in the loin just below the rib on the right side. He suffered much at this illness. Suddenly the swelling began to go down and large quantities of pus appeared in the urine. He then rapidly recovered but still he was not well and the old pain returned and persisted in his loin. *He has had pus in his urine for a year.* A month ago he came to the hospital and was put to bed just before operating, after lying in bed a month, the pus almost disappeared to a trace. The surgeon must be blinded by rest. Rest made this man appear almost well. Rest is as deceiving in the cure of some conditions as opium is in obscuring the real symptoms in perforated intestines. Rest and opium will obscure symptoms and good judgment is required to decide whether some rattlesnake does not lie under a basket of roses. I am aware of a case to-

day where a physician poisoned a patient with opium who had suppurative peritonitis—all because the opium stopped his pain and made him feel better. However, after nearly every trace of pus was gone from his urine and pain from his loin by a month's rest, Mr. May decided to operate, and kindly invited me to see him do it. He cut, parallel to the last rib, a three inch incision and went rapidly on to the kidney —of course extra-peritoneal.

On arriving at the kidney he took a long sharp needle and pushed it into the pelvis of the kidney in several places, when finally he came upon a stone, known by its grating. He said he had made more than a dozen punctures with such a needle in the kidney of such patients, but no harm had ever occurred. Keeping the needle on the stone he cut down along the needle with a fine pointed knife. The incision was on the anterior surface of the kidney. It was enlarged sufficient to admit the finger when it was found that the kidney was very much dilated. Its pelvis was very large. Its walls were thinned.

At this stage arose a difficulty which was serious as to the time and shock by manipulation. It was the great difficulty of getting the stone out. It would slip away from fingers and forceps. It would hide in the calyces of the kidney. Finally, after some difficulty, the stone was seized and drawn out. It was about the size of a hickorynut, round and smooth. Mr. May then closed the wound. He put a rubber drain tube into the wound but not into the incision in the kidney, as he said that created so much pain for patients. The urine would trickle out of the kidney wound and then into the rubber drain tube. Up to writing the boy is doing well. It is instructive to remember the clinical history of this boy. It was pain in right groin and it radiated, but especially downward. He had a swelling in the right loin once, and it suddenly went down. Copious pus followed in his urine for some time.

This is easily explained now the stone is found. The stone fell into the mouth of the ureter in the pelvis of the kidney and blocked it up, and dilated kidney resulted, containing pus. By some accident the stone was dislodged from the ureter's mouth, and out flowed the pus. But it is a wonderful progress in medicine to be able to diagnose a stone in the kidney, cut down on it, remove it, with perfect recovery.

It has been my good fortune to have seen some brilliant work done in this department. In my six months' residence in Birmingham no less than four surgeons cut down on such cases, and in every case pus was discovered and drained, and in three cases good-sized stones were removed. In every case the kidney was saved, and the patients recovered.

Neurasthenia or Beard's Disease.

TRANSLATION FROM "LE MONDE MEDICAL," BY C. C. P. S.

This disease, whose clinical individuality and symptomatology, are of recent date, owes its entity to Dr. Beard, of New York, and the unfolding of its variety of forms and peculiar features to Dr. Charcot, of Paris. Thus neurasthenia, freed from all foreign elements, is a disease of the nervous system characterized by a multitude of perturbations arising from exhaustion of the nerve-cells, without anatomical lesion, or rather, a functional disorder, the intimate pathogenic conditions of which are yet undetermined.

ETIOLOGY: The causes of this affection are various and numerous and depend upon heredity, temperament and hygienical surroundings. Physical and mental overwork, acute and chronic diseases may also determine it. Age 20 to 50 years. Sex: Women are more subject to it, though both sexes are affected. Occupation: Brain workers are the most frequently affected, but no occupation is exempt from it, even manual laboring.

The intelligent members of society, professional men, bankers, capitalists in active operation, stock or produce speculators, tradesmen, statesmen, candidates for competitive examinations, artists, literary men, are all subject to this disease.

Vivid emotions, prolonged sorrows, reverses of fortune and domestic infelicities, have an incontestable etiologic influence on nerve exhaustion, at the same time that pleasing sensations which excite the sensibilities, indulgence in unnerving literature, emotional displays, thrilling theatrical performances, music, etc., which carry the nervous system to the highest degree of tension, produce the same effects. In addition to these causes we have also chronic poisoning by tobacco, alcohol, wine, coffee, bad hygiene, physical fatigue, excessive muscular exercise, over sexual indulgence, acute and chronic diseases, anæmia, dyspepsia, chlorosis, uterine affections, traumatism and in the laboring classes, insufficient alimentation.

All these circumstances are encountered especially in large cities, where the struggle for life is at the maximum.

SYMPTOMS: There are few diseases manifested by such a multitude of symptoms as this. Dr. Charcot discloses a few specific signs, almost always present, which constitute true pointed marks, under the designation of neurasthenic stygmata as follows:

1. CEPHALEA NEURASTHENICA.—The headache is one of the most frequent symptoms; it is inconstant, transitory, seldom continuous, but seldom fails. Sometimes the sensation is that of a tight band around the head; again of a weight and other times of a circumferential pressure, which suggested the name of neurasthenic helmet. Its position varies; sometimes effects the frontal region—Frontal Plate (Charcot's) —more frequently the occipital—Occipital Plate— again quite often the eyes and the brow, revealing the sensation of a heavy visor. Vertigo, dazzling and buzzing of the ears, are often present, but the most conspicuous sign is the hyperæsthesia of the scalp, so that the least pressure, the combing of the hair or its traction is accompanied by pain.

2. INSOMNIA NEURASTHENICA.—This is one of the most annoying symptoms, and one which inhibits the most the recuperation of nerve force. The patients are deeply affected by this and always complain of it. Sometimes the insomnia is complete, a rare occurrence; others and more frequently, the sleep is obtained but it is troubled by painful visions, nightmares and tiresome dreams, so that the patients are awakened in a startling state and fail to attain more sleep. Occasionally they fall into a state of somnolence which adds to their prostration, and finally it is not uncommon the development of night emissions, followed by thorough exhaustion.

3. RACHEALGIA.—This spinal hyperæsthesia is characterized by pain, both in the vertebra and the soft parts. Two places are more constantly the seat of the pain;

the upper portion of the vertebral axis—cervical plate (Charcot's) and the lower part of the spine—sacral plate (Charcot's). The coccygeal region was also found by Beard, to be the seat of pain—coccydinia. Pressure along the spinal processes is painful and the patients complain besides of a feeling of burning, pricking and formication.

Amyosthenia.—Besides these characteristic perturbations, the prostration is intense; there is extreme muscular weakness and total absence of energy, so that locomotion is difficult, motion is feared and the patients take to their beds where they remain outstretched and motionless, but in spite of this rest, tomorrow finds them still more prostrated and torpid than the day before.

Dyspeptic Disorders.—This debility of the muscular system of the life of relation proceeds on a par with that of the organic life, which it perhaps influences. The nerve exhaustion reflects upon the digestive organs; the appetite sometimes is unimpaired at first, but in the majority of cases is diminished, perverted or abolished. In the former case, the digestive disorders appear later, which is used as an argument that the dyspepsia is secondary against the opinion of those who claim that it is primary. In the second, the gastric disturbances are present early, and are manifested by a feeling of weight in the stomach, tympanitis, eructations of gases and borborygmi. Constipation is very frequently present.

There may be enteritis or entero-colitis with mucus or muco-sanguineous discharges. The whole digestive tract shares the general weakness, both the gastric and intestinal muscular coats are somewhat paretic, their contractibility is lost and the secretions of the organs are diminished, with this, coexists dilatation of the stomach, and fœcal stasis, which gives rise to phenomena of auto-intoxication and tends to complicate the disease and aggravate the general state.

Genital Perturbation.—These disorders in man have grave results because of the weakness and mental derangements arising therefrom.

At first there is a pronounced hyperexcitability of the sexual organs, a priapism-like, demanding frequent coition, but this is only a prelude soon followed by more or less marked impotency, for after a certain lapse of time, the erections become rare and incomplete and the emissions occur too quickly, almost at the intromission of the penis in the vagina; other times, the sexual congress is impossible because of insufficient or short lasting erection. Finally the patient has night pollutions assuming the character of a true spermatorrhœa, which adds to his debility and exasperation.

The impotency in the woman is not manifested in the same degree, but in many there is an absolute repugnance to sexual congress. Very frequently they suffer from dysmenorrhœa, etc., and other painful genital disorders, leucorrhœa, etc.

Mental State: To the multiple disorders both of the life of relation and organic life, a peculiar mental condition is added, arising from the functional disturbance of the nervous system. The intellect loses its keenness, the faculties become blunt and mental depression predominates with despondence, despair and a deep sadness.

The patient's volition is in a constant state of vacillation, as shown by the versatility of his actions. Their character is irascible; always in a state of mental unrest and agitation; the ordinary contrariations of life overtax their impressionability, and render them incessantly anxious and sad. A most striking symptom is their poverty of memory, chiefly for recent events; if they wish to undertake their usual work, the intellectual faculties fail to respond adequately, they soon get discouraged and their physician's exhortations have but a temporary power to raise their depressed spirits.

These are with few exceptions the mental conditions of the victims of neurasthenia and the most conspicuous symptoms of the disease.

Resumè, headache (cephalia) varying in seated and persistent insomnia, spinal irritation, general muscular weakness, digestive and genital perturbations and a peculiar mental state.

Secondary symptoms: Besides the above symptoms that are, per se, sufficiently definite to avoid errors of diagnosis, there are other accessory phenomena which though not of a specific character, may at times become conspicuous, either because of heredity or individual predisposition, and thus alter the common features of the disease. It is alway possible however, in these cases, to encounter some of the above mentioned stigmata. Among these, which I present only a synopsis of, for lack of space, vertigo occupies frequently a leading place, then accomodative asthenopia and hyperexcitability of the auditive nerves, expressed by a multitude of subjective sensations of noise, blowing, knocking, hissing. Also some perversion of the organs of the taste and smell without a special character. Alterations of the cutaneous sensibility and of the motility are not infrequently met with, manifested by pricking, burning and itching, and cramps, paresis, and transient muscular paralysis. There are also attacks of pseudoangina, local sweats, circulatory disorders, glycosuria, albuminuria and transient pyrexia.

Clinic Forms: A great variety of clinic forms of neurasthenia might be added, if the predominance of one or other symtom, or if etiological notions were heeded; this would envolve not only a waste of time with forms of a minor importance, but would require special descriptions with unavoidable repetitions, wherefrom confusion rather than clearness, frequently arise.

We shall therefore confine ourselves to the two forms—cerebral and spinal—adding a few remarks in reference to the forms—traumatic and hysteric.

Cerebral Form: It is especially characterized by constant headache, insomnia, hyperexcitability of the senses, cerebral impotency, mental depression and loss of memory. Especial cause: Excessive brain work.

Spinal Form: Characterized by weakness of the lower extremities, neuralgia (intercostal and sciatic) genital impotency, spermatorrhœa, gastro-intestinal disorders and lightning-like pains.

The association of one or more symptoms pertaining to both forms above, gives in result the cerebro-spinal form. The forms—cerebro-gastric, cerebro-cardiac and cerebro-genital (Beard) depend upon the conspicuousness of one or more symptoms pertaining to both.

The etiological varieties present also a special interest. The recent study by Charcot as to their mode

of development and medico-legal value, assign them a prominent place.

The terms: Traumatic neurosis, in Germany, railway brain and railway spine in England, comprise a series of nervous phenomena, consecutive to injuries occurring in railroad accidents, or produced by other industrial machines. These nervous perturbations, aside from the special surgical disorders, have been referred by Charcot to their true cause. The traumatism determines in the patient's symptoms of hysteria and neurasthenia, the stigmata of which may be always detected. The two affections are frequently associated, but a careful examination permits the differentiation of the peculiar phenomena pertaining to each. The traumatic hystero-neurasthenic form belongs especially to the laboring class and its curability is extremely slow.

Evolution and Progress: Neurasthenia does not obey cyclic laws; it is subject to various fluctuations; occasionally it may have an abrupt start, but ordinarily its development is slow; the symptomatic features undergoing a series of changes with the time. Often a prodromic period occurs manifested by insomnia, headache and indigestion. The stationary period is marked by the manifestation of all the phenomena enumerated. The cure may take place then, or after alternatives for good or bad. Neurasthenic cachexia, a true destruction of the nervous system, is rare and may terminate by hypochondria, melancholia and (in predisposed individuals) by vesanic perturbations.

Prognosis: Heredity renders the prognosis graver, also the genital variety, spermatorrhœa and dyspeptic disorders, because of the impairment of nutrition. The insomnia and the peculiar mental state of some subjects, aggravate their case. The traumatic neurasthenia is also very rebellious. In the majority of the cases, however, if the disease is properly attended to from the start, a cure may be attained.

Diagnosis: With a full knowledge of the stigmata and a firm purpose to detect them, the diagnosis is comparatively easy; it requires, however, a well planned method of investigation, in order to clear away from the confusing mass of complaints and collect from them only those that are available.

Neurasthenic headache should be differentiated from the syphilitic headache, in that the latter attains its maximum at night and is accompanied by other specific symptoms; from the headache of adolescents, due to their growth or to a partial over-brain work, which generally disappears with repose; from facial neuralgia, because of its occupation of the traject of the nerve-branches; from migraine, because of its unilaterality, intensity of pain and the association of vomit; from the growths of brain, by the persistence of the pain, its gradual increasing character, other phenomena from pressure, etc., and the absence of stigmata; from hysteric and uræmic headaches, by the detection of the characteristics of the two affections wherefrom the headaches emanate.

Vertigo, dyspeptic disorders, neuralgia, anginous and vaso-motor disturbances, are differentiated by their coincidence with the neurasthenic stigmata, from the same phenomena due to other pathologic conditions. Finally, neurasthenia should not be confounded with the organic lesion of the brain and spine, general paralysis, locomotor ataxia, cerebral syphilis, alcoholic pseudo-tabes and hysteria, which may in great number of cases complicate it.

Treatment: The victims of neurasthenia are afflicted both physically and morally, their despondency and discouragement are intense, and the promises and exhortations of the physician as to an ultimate radical cure go much further than his medicinal therapeutics toward a successful issue. Our therapeutic armamentarium, though rich in numbers, is in this disease very poor in activity; an exception should, however, be made of a medicament of recent discovery, the kola nut, thanks to the investigations of Heckel, Lee, Huchard and Beaumetz. Chiefly composed of theobromine, caffeine and the kola reed, an ill-defined substance, this nut possesses a manifest action upon the nervo-muscular systems, and according to Huchard it is a general restorative and a cerebro-excitant, a double action which renders it very useful in this disease. In addition to this, other indications may be met by the chalybeates, bitters, alkalines, absorbents, strychnine, arsenic, etc. The hypnotics are also at times serviceable. Hygienic means are incontestably useful. Hydrotherapy renders great services; warm baths, warm packing, tepid affusions, are very useful in the forms of neurasthenia wherein insomnia and agitation preponderate. The cold douche is a potent tonic against the amyosthenia, but its temperature should be gradually lowered and not very cold at first in order to be effective. The change of climate, by its variation of scenery, associations, modes of life, etc., in the midst of a pure and invigorating atmosphere, is of the greatest advantage.

The method of treatment recommended by Weir, Mitchell and Playfair, comprising absolute isolation, complete rest, superalimentation, massage and electricity has given good results, chiefly in the cases dependent upon hysteria.

Numerous cures have been obtained by Dr. Vigouroux under Dr. Charcot, at the Hospice of the Salpetrière, by the use of static electricity.

Are Improving.

"The social relations among physicians are constantly improving," said a well-known Missouri doctor. "I can recall the time when doctors were extremely jealous, and even at their conventions would show a strong disposition to quarrel."

"Yes, that's a fact," answered a doctor who stood near. "Take our last convention, for instance. But two of the men that were shot died from the effect."

"Only one," said the first doctor.

"No, two."

"I ought to know. I was there."

"So was I."

"Then you ought to know what you are talking about."

"I do."

"You don't."

"You are a butcher."

"You are a liar."

A lawyer came up and separated them.

Citizen. "Hello, Doc., have you seen Mike?" Doctor. "What Mike?" Citizen. "Microbe. He's looking for you."—*Memphis Medical Monthly.*

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

The Ubiquitous Reporter.

The *Medical Mirror* for June contains an article by "Medicus," savagely attacking the newspaper reporter in general and the reporter who attends medical society meetings in particular. The satire contains some good points, but the proof reader did his work so badly—at least we suppose it was the proof reader who was at fault—that much of the author's sarcasm is wholly lost. When an author criticises another for bad spelling he had better be careful of his own spelling, punctuation and other trifles which go to make the reader happy or miserable as the case may be. By the way, Dr. Love, how can you of all others allow such a tirade against newspaper reporters to appear in your columns? Have you forgotten the *genii* of Whitechapel Place? And not an *Inter Ocean* man among them. My dear Medicus, you must meet the reporter as he should be met; 'twill warm the very cockles of thy heart and melt the marrow of thy bones.

Apropos of errors in medical spelling perpetrated by newspaper reporters in their reports of medical societies and wonderful cases, we know a thing or two: A distinguished medical gentleman of our acquaintance has purposely avoided the correction of errors of this kind lest the profession might suspect that he had furnished the data for a newspaper article. Oh ethics, how are the mighty fallen!

A Reflection from the Congo.

A recent issue of the *Chicago Herald* contained the following note:

"The Congo State's only newspaper, the *Congo Mirror*, made its first appearance a few weeks ago. It is a four-page weekly, printed with a lithographing machine. The editor, proprietor, printer and newsboy are incorporated in one man. The *Mirror* is a fighter, and in its first issue accused a Congo official of murder and scoffed at the king of Belgium."

As we have not heard from St. Louis lately, we don't know whether Dr. Love has gone to the Congo or not. The above description looks suggestive to say the least; or is it an off-shoot of that other and only *Mirror*, whose bright effulgent rays have erstwhile enlightened the denizens of that ancient and venerable village on the banks of the Big Muddy? There is no limit to our friend's soaring ambition. We have no doubt that the Ahkoond of Swat will subscribe to the *Mirror*. If, as we suspect, the *Congo Mirror* is a branch of the *Medical Mirror*, we venture to say that the mighty potentate will find very little deference shown him in the editorial columns, and moreover we are certain that he will have to settle his subscription promptly. Our brilliant contemporary is as business like as it is luminous and interesting.

Summer Complaints in Children.

The Chicago Medical Society is having a series of interesting symposia upon live topics, which are proving both interesting and instructive. At the meeting of June 15, at the Newberry Library, the pathology and treatment of the summer complaints of children were exhaustively discussed. Very little if anything new was developed, a circumstance which is rather noticeable from the fact that the gentlemen taking part in the programme were specialists in pediatrics. The practicality and earnestness of the speakers were however very commendable, the address of Dr. Knox being, as is all of his work, as learned as it ever is charming in style. There was a trifle of pathos incidental to the reading of one or two of the papers. Behind the rostrum was a large life size painting of two ancient and venerable philosophers who seemed to smile benignantly down upon the learned assembly. As some of the pediatric ideas flowed forth in silvery streams from the mouths of the oratorical cyclones into the circumambient air, these two relics of an almost forgotten past aroused from their pictorial lethargy and seemed about to start from the insensate canvas and join in the proceedings. As one theory after another was promulgated and the two old gray beards recalled from out the misty past the bellyaches, spinach-green stools and old time remedies of their youth, and saw in rapid progression the doctors of the olden time flit before their mental visions, saturnine and terebinthinate tears oozed from their leaden eyes and dropped upon the platform in sonorous applause of the modern system of therapeutics. Later on, however, the poor old fellows actually smiled at Dr. Hoadley's description of a Milwaukee Avenue cow, and when Dr. Ingalls described the grooming and feeding of a member of the bovine 400, the ancient philosophers fairly clapped their hands for joy.

Apropos of the cow question there was, as the darkey expressed it, "heaps and heaps ob sense" in Dr. Hoadly's remarks anent the city cow with its manure chipped flanks and fly attracting-not-dispersing-tail. Dr. Ingalls gave a very elaborate description of the ideal cow and how she should be stalled, bedded, groomed, fed and watered. But the pampered and aristocratic cow is unfortunately too rare to be of much practical value to our babies. Another objection is that by the time the cow is idealized sufficiently she is too thoroughbred and high priced to engage in the plebeian pursuit of giving milk for the sustenance of American babies. Her only sphere is the boulevard or running the Derby.

Dr. Hatfield attributed the summer complaints of children in great measure to what he termed malaria. This much abused term he still further abused by making of it an omnibus to cover all the unhealthful atmospheric conditions to which city babies are subjected. There is much of truth in the view that poisonous exhalations and emanations both from dead and living matter have much to do with summer complaints in children, but "miasma" would fit these varying conditions better, and lead to less confusion. The term "malaria" might also lead to overdosing on the much-to-be-abominated theory of specificity. But whatever it be called, crowd poison and the virulent breath of that modern demon, the sewer, are all potent factors in the production of the blight that fills so many little graves summer after summer.

Dr. Hoadly very properly called attention to the custom of swaddling children to death with superabundant clothing. When will mothers learn that the delicate sympathetic system of the child can illy bear the atmospheric heat of summer, and that an excess of clothing may be the last straw that breaks the camel's back?

And when will doctors learn a little about that same sympathetic system. The pathogenesis of summer complaints is almost embraced in the proposition that they are due to microbic infection, irritating food, poisonous air or water and high temperature, one or all, disturbing the equilibrium and trophic functions of the sympathetic system. Many cases of so-called entero colitis mean a vaso-motor gastro-intestinal disturbance to which all of the so-called inflammatory changes are secondary

But mothers go on swathing the baby in flannels, denying it cold water and fresh air, and overcrowding its little stomach, and the doctor shuts his eyes, looks wise, and prescribes opium, that *pons asinorum* and mask of ignorance which has effaced the evidences of so much of our bad work. And when the dear little dimpled pink blossom closes its lids and sleeps the sleep of the innocent and untimely-called; the preacher comes and says, "It was the will of God." But the poor little baby lying there in its narrow coffin if—as the preacher says—it has opened its eyes in a new life, knows better, and looks down at the folded hands and waxen face of its old time shell and thanks God that mamma did not throw it under a locomotive and that the dear old doctor gave it opium instead of hitting it with an axe.

Dr. Jacobi has done more for pediatric science than any living man, and upon his monument should be inscribed "he gave babies whiskey and cold baths in summer." Small doses of good liquor and frequent cold bathing with plenty of fresh air and even a halfway regulation of diet will save more babies than all the doctor's stuff in christendom. And let the dear old doctor who still believes in lancing baby's gums have a chance. Never mind the ptomaines and microbes, you dear old philosopher, just cut those swollen gums and—throw away your opium so that you will not be tempted to kick over a good pail of milk like a fractious cow.

The function of intestinal antiseptics is a very important one in the management of the diarrhœas of children. The best of the class are in our opinion naphthol, salicylate of bismuth and arsenite of copper. These remedies judiciously used give excellent results. The suggestion of Dr. Patrick—the use of atropia is a good one. This drug has a powerfully stimulant effect on the sympathetic. The bromides and ergot must not be forgotten. They are too often neglected until convulsions come on, when they may, unless judiciously used, do more harm than good. Convulsions may mean cerebral anæmia. The practical deduction is sufficiently obvious.

A point occurs to us here which may be of interest. In cases of impending death from the choleraic affections of childhood, what could be more in the line of rational therapy that flooding the peritoneal cavity with very feebly saline hot water? Would not the magical effects observed in laparotomies with consequent profound shock and hæmorrhage seem to give us a powerful hint? And where's the harm of trying this intraperitoneal transfusion? Much of the collapse of children with choleraic disorders is due to shock from abdominal pain, the rest is due to loss of the fluid elements of the blood and toxæmia. The indications are clear; what can fulfill them better than this procedure? Theoretically it seems logical. Why not try it practically? It can at least do no harm in otherwise hopeless cases—which cannot be said of some drugs. But opium you know is so clean and respectable. *It never makes a scene*, and it is so soothing to the medical ostrich with his head in the sand.

In marasmus incidental to summer complaint in children the paramount indication is to check wasting and increase nutrition. Unfortunately the digestive organs are in such an irritable and enfeebled condition that even the most assimilable articles of diet are often either rejected or passed undigested with resultant increase of intestinal irritation. Strange as it may seem such children often tolerate absolute suspension of feeding better than more robust children. This is an important point, as the parents of such children are apt to consider stomach feeding at frequent intervals a *sine qua non*. They should be assured that absolute abstinence from food is far better than pouring food into a digestive apparatus which is absolutely incapable of performing its normal functions. Complete rest of the stomach, supplemented by frequent tepid sponge baths and inunctions of cod liver oil will often accomplish wonders within a very few days. We could cite many cases occurring in the days of our hospital and family practice, where cod liver oil inunctions saved little ones from untimely graves. Where the stomach will stand any form of nutriment we have found Gaunt's peptones in small doses very reliable as an adjunct to the cod liver oil, brandy being added if tolerated.

The recent meeting of the trustees of the American Medical Association, in Chicago, gave the gentlemen composing the board an opportunity to show the stuff that's in them. Scientifically and professionally they are a galaxy of stars; socially, they are far up above this mundane sphere among the livelier and more conspicuous planets way beyond even Professor Proctor's ken. Those of our readers who are disposed to slang—which by the way we greatly deprecate—may translate this, each to suit his own fancy. A theater party was given in honor of the trustees, by Drs. H. N. Moyer and G. Frank Lydston, after which the bones of the celebrated Bohemian Club called Whitechapel, were melodiously and musically rattled. Mr. Chas. Seymour, of the Chicago *Herald*, Mr. Ben King, of the *Globe*, Mr. Wallace Rice, and other talented members of this brightest of American clubs, outdid themselves in honor of their distinguished guests, and it is said that each trustee carried away a skull from the famous club collection under his coat. It was a goodly sight to see the gradual relaxation of dignity and subsequent hearty appreciation of the bon mots, brilliant flashes of repartee and beautiful music which ever characterizes the proceedings of the club. The guests of the evening were by no means behind hand in their responses. As one talented member of the club remarked: "it is refreshing to meet a medical man who knows something besides pills and potions," Not even Chauncey Depew made a more pleasing impression nor received a more cordial invitation to call again than did the able representatives of America's greatest Medical Association.

Reorganization of the Chicago College of Physicians and Surgeons.

The coming collegiate year will be marked by a number of radical changes in the above institution; several gentlemen have resigned and a number of new professors have been elected. Among the new men are Dr. Bayard Holmes, surgical pathology; Dr. Boerne Bettman, ophthalmology; Dr. James A. Lydston Prof. of chemistry and lecturer on ophthalmology and otology; Dr. Weller Van Hook, general pathology; Dr. E. E. Babcock, clinical medicine and diseases of the chest; Dr. G. Frank Lydston, surgical diseases of the genito-urinary organs and venereal diseases.

The college already has an excellent reputation and the elements of strength which have been added to the faculty will undoubtedly add to the usefulness and renown of the institution. The increased confidence of the alumni of the institution augurs well for its future prosperity.

ABSTRACTS.

Ophthalmology.

REMOVAL OF FRAGMENT OF STEEL FROM VITREOUS BY ELECTRO-MAGNET.—Charles Black, M. D. The *Cincinnati Lancet Clinic.*—The patient, forty years of age, had received a severe injury to left eye about fifteen years before, which considerably affected his vision. Some months ago his right eye was pierced with a piece of steel, and an examination was made about a week after the accident. There was a small horizontal scar at the inner upper margin of the cornea, about one line long, and corresponding to this a slight perforation of the iris, and at this point adhesion to the lens capsule. Almost the whole of the lens was opaque from traumatic cataract, a visible streak extending from the anterior to the posterior lens capsule, from upward somewhat downward, showing the direction the foreign body had taken. In the vitreous there was a small opacity, with a slight metallic gray, yellowish reflex, but this could not be seen very clearly on account of the cataract, yet the conclusion was reached that the foreign body had passed through the cornea, iris and lens, and was located in the vitreous. It was decided, if possible, to remove this, and an operation was performed the next day.

The corneal section was made downward, an iridectomy done, the debris of the lens opened, and the electro magnet introduced. As the foreign body was somewhat deeper than at first supposed it was necessary to introduce the magnet several times before it could be secured and removed. It was about one line long and half a line wide. The healing process was regular and uninterrupted, the greater part of the opaque masses of the lens gradually underwent partial absorption and what remained being operated on by the needle a tolerably round pupil was obtained. The vision with convex glass of 12D. is 20-40, and with convex lens of 15D. he is able to read Snellen No. 5. The vitreous is clear and transparent, and the fundus can be recognized distinctly.

TRANSPLANTATION OF MUCOUS MEMBRANE FROM THE MOUTH TO THE EYELIDS.—*N. Y. Med. Journal.*—This operation, which is performed for the relief of entropion and trichiasis, is described by Arthur Benson in the *British Medical Journal* for February 7th, and is called by him the "St. Mark's Hospital Operation." The first step is to split the affected lid along the whole length of its free border in such a manner that all the cilia, both normal and abnormal, are in the anterior or skin flap, and all the conjunctiva is in the posterior flap. The incision should run obliquely through the tarsus and extend into the subcutaneous tissue of the lid, as otherwise the wound will not gape freely and the transplanted flap will be squeezed out of place by the rigid lips of the incision. The making of this incision is the most difficult and important part of the operation. A piece of mucous membrane of the requisite length and width is dissected from the mucous membrane of the lip, freed from submucous and areolar tissue, and fixed in the lips of the wound in the lid by sutures. The operation is rendered practically bloodless by compression of the lid. For this purpose Knapp's modification of Snellen's clamp is mentioned as preferable. After the removal of the clamp the hæmorrhage is free for a time, but soon ceases, and a dressing of iodoform ointment is applied. When it is first transplanted, the flap is almost white and bloodless; after twenty-four hours it turns almost black-red, like an old blood clot, and in another day it becomes a bright-pink color, which it ever after retains. This operation has been in use for some years in St. Mark's Ophthalmic Hospital, Dublin, where an unusually large field for testing the value of such a procedure is found, on account of the great prevalence of granular ophthalmia and the resulting entropion and trichiasis; and the testimony that no other operation has ever given its surgeons the same perfection and permanence of results is worthy of consideration.

Surgery.

TENO-SYOVITIS. Joseph P. Tunis, M. D.,—*Medical Mirror.*—James O'Connor entered the dispensary for treatment, stating he was a plumber by trade and some time previous after working with a shovel for three hours a sharp pain was felt in his right arm, which had steadily increased. The man was large and muscular, over six feet in height but in a debilitated state of health.

On grasping the right forearm, and moving the the hand a gritting feeling was readily perceptible on the extensor surface, resembling very closely the sensation produced by rubbing two pieces of fine silk between the thumb and forefinger. Tonic treatment was ordered to tone up his system, and local treatment to arm in four days relieved the gritting. In ten days the pain and motion had entirely disappeared, but the bandage was continued for some time longer when the cure was pronounced permanent.

CANCER OF THE RECTUM. L. L. McArthur, M. D. —*Cincinnati Lancet-Clinic.*—About a year and a half ago, a female patient presented herself for treatment at hospital with what she believed to be hemorrhoids, and symptoms of absolute stenosis of the intestine requiring immediate relief. As a diagnosis of carcinomatous obstruction of the rectum was made, a colotomy in the left lumbar region was done, and after the lapse of three weeks the artificial anus being established and well healed, an excision of the rectum

was practiced. A deep posterior incision from the anus to the left side of the coccyx, well down to the posterior wall of the rectum was made; this being dissected laterally until the vaginal wall was reached, and as the carcinomatous growth had involved this to the level of the posterior lip of the cervix, it was removed as well as the rectum to this level, including the sphincter muscles.

The rectum was stitched to the skin of the left side of coccyx and deep transverse stitches were inserted to make a new perineal body. Patient made a good and speedy recovery.

After one year had passed she again presented herself and the anterior rectal wall was found to be invaded by a new growth, which was commencing to cause her pain upon defecation. As she insisted upon a repetition of the first operation it was performed some weeks later, by excising the portion of the rectum which had been drawn down and attached to the integument at a point on a level with the posterior lip of the cervix. All indurated tissue was dissected out laterally, so far as it could be reached, and as it was found to be impossible to bring the end of the rectum down to the integument it was sutured at the top of the vaginal incision, after the cicatrix had been removed. The vaginal mucous membrane was united and the lateral pelvic tissues brought together by very deep, heavy silk sutures, a perfect union being thus obtained.

The patient since second operation feels perfectly well, has gained in weight, and states that she has now perfect control of the bowel, and is capable of evacuating its contents without douche. It is expected however that there will be a return of the trouble.

RARE CASE OF BONE ABSCESS—TREPHINING—RECOVERY. Louis Bauer, M. D.—*St. Louis Clinique.*—Patient having experienced trouble for more than ten years, presented himself and by examination the left tibia was found considerably enlarged in its upper third, impressing the observer as if the bone were distended. The integuments did not seem to deviate from normal appearance, and palpation and pressure caused no pain, although at times there had been such intense pain as to cause great inconvenience and even prevent locomotion.

The cause of the trouble was supposed to be an injury to the leg while bathing, but it did not give him any serious trouble until about two years after, when inflammation and swelling of the leg became perceptible, this gradually increasing until the muscles and tendons seemed to contract and were very sore.

An operation beeing deemed the only procedure for relief of patient, it was performed by removing two buttons three-eighths of an inch each, and the intermediate bridge being chiseled away, an abscess was disclosed from which the pus welled up. The cavity was irrigated with hot water, iodoform mixture applied, a drain tube inserted and the wound united by sutures. The greater part of it healed by first intention, the sutures being removed one week after operation. Patient's condition is better than for years, the muscles and tendons having completely relaxed.

LIGATION OF THE COMMON CAROTID ARTERY IN CHILD THREE AND ONE-HALF YEARS, FOR HÆMORRHAGE FOLLOWING PERI-TONSILAR ABSCESS. RECOVERY. Thos. D. Dunn, M. D.—*Univ. Med. Mag.*—A little boy of good healthy parentage, 3½ years of age, was at the time of contracting the cold, in a fine physical condition, his weight and strength being above those of the average child of his age. When first seen there was high fever, rapid pulse, with pain in the right ear, and redness of the fauces. In two days the fever continued high, 103°, pulse 120, tissue of neck on right side being extensively swollen, causing difficulty in turning the head and opening the mouth. The breath was fetid and the mouth contained considerable mucous.

Examination revealed the right tonsil greatly congested and swollen, involving the adjacent parts of the pharynx and palate, and nearly blocking the isthmus of the throat. A mixture of tincture of the chloride of iron and sweet spirits of nitre was given and with the exception of increased tumefaction of the tissues of the neck, there was little change in his condition for several days when the abscess opened spontaneously, discharging a large amount of pus and some blood. This was beneficial in relieving the congestion and swelling of the neck, and the next day the little patient seemed much better, temperature normal, deglutition less painful, but several hours later the blood collected in the throat, and he vomited some large clots. An application of Monsel's solution on cotton to the point between the tonsil and upper part of posterior palatine fold, where the blood was escaping, stopped the hæmorrhage at once, and nutrition was given in the form of beef tea, broths and hot milk freely salted. These hæmorrhages continued to occur during the next three or four days and as the condition of the child was becoming very critical it was deemed that the time had come for operative interference.

Hoping to secure some pressure on the point from which the blood made its escape, a piece of twine was carried through the right nostril by means of a small soft rubber catheter and brought through the mouth. To this was attached a large piece of borated cotton, this being carried carefully into the pharynx with post-nasal forceps, and drawn firmly into the post-nasal chambers. As there had been no hæmorrhage for forty-eight hours, the cotton was removed, causing a slight oozing of blood which was promptly checked. Applications of a weak solution of the chloride of iron were made every three hours, and an astringent spray used every hour, in order to contract the parts sufficiently and prevent the blood from forcing its way through.

A small lump now began to make its appearance in submaxillary region, increasing very rapidly until there was a pulsating tumor, two and a half inches in length by one and a half in breadth, and extending from the mastoid process beyond the angle of the jaw, each pulsation elevating the jaw and head. The child was in a drowsy condition, and the parents now consenting to operation it was immediately performed.

A few drops of chloroform were given the child to inhale, and anæsthesia completed with ether. The neck was rendered thoroughly antiseptic, flannel wrapped around child and he was placed on his back, with head turned to left side. An incision was made two and a half inches long, beginning a little below the angle of the jaw, along the anterior border of the sterno-mastoid muscle to a level with the cricoid cartilage. Careful dissection exposed the artery without injury to any important structure. A catgut ligature was used, and ends cut close to the knot.

Catgut drainage was introduced and the wound closed with silk sutures, and iodoform and bichloride gauze used for dressing. There was but little loss of blood, and this was of a pale watery character. The tumor decreased rapidly, and in four days temperature was normal with no subsequent elevation. The wound united without suppuration, and in eight days the stitches were removed, and recovery was rapid and uninterrupted.

Ovariotomy as a Prophylaxis and Cure for Insanity. Robt. A. Kitto, M. D.—*The Jour. Am. Med. Ass'n.*—Ada. M., age 25, single, when 13 years old, experienced a severe attack of scarlet fever which left her in an unsound condition of mind. This grew rapidly worse until her eighteenth year, when becoming so violent and unmanageable, her parents were obliged to send her to an asylum for treatment. She remained for eight months, and was then discharged, but upon her return home immediately began to show signs of her former trouble and at the expiration of two years was returned to the asylum where she remained for one year. She was not so violent as formerly, but remained in a semi-sane condition, and it was necessary to confine her to the house, as she frequently escaped into the street in an almost nude state. She complained constantly of a pain in the groin and region of the womb, and she had a discharge of acrid pus per vaginum. Her menses were irregular from the age of fourteen, and no treatment seemed to be of benefit to her.

As her ovaries and tubes were undoubtedly much diseased from the symptoms, ovariotomy was performed in the usual manner, the incision made and the organs removed with the tubes. Both ovaries were in a chronic state of inflammation, and the tubes in a state of pyosalpinx. A small amount of acrid pus escaped from each ovary in removing them, they having grown extensively on the bowels and surrounding pelvix tissues, which necessitated considerable tearing in order to remove them. The gut was accidently torn and fæcal matter and gas escaped, but the lacerated edges were excised and closed with a suture of silk. After closing the entire wound, a dressing was applied, hot bottles placed around patient and a hypodermic injection of morphia 1-3 gr. given. After the effects of chloroform had passed away and she had become fully awakened, she conversed in a manner that impressed one with the fact that she had regained her mental faculties. In four weeks she had fully recovered both physically and mentally.

Polyps of the Male Urethra.—Herman Goldenberg, M. D.—*New York Med. Journal.*—J. L., 59 years old and in the enjoyment of perfect health, suddenly and without apparent cause was unable to pass his urine, even with the strongest effort. Up to the time micturition had been normal and unaccompanied by pain. Internal medication, sitz baths, and rest not proving of avail the patient was catheterized, but not being able to pass his urine for the following two days, he was sent to the hospital, and urethrotomy, internal and external was at once performed. He made a good recovery and was discharged at the expiration of six weeks. Some time later he came under my observation, complaining of difficult and frequent micturition, there also being a rather profuse purulent discharge, consisting of epithelium and pus cells, but on microscopic examination no gonococci were revealed. The urethra was very tender, especially near the bulb and in its posterior part, the passage of a No. 14 English sound being always made with difficulty, causing considerable hæmorrhage from which patient did not recover for two days.

Upon being subjected to an endoscopical examination a prominent body like a growth was visible, nearly filling the entire field of vision. The bright red color of this tumor contrasted with the paler hue of the surrounding mucous membrane to the upper and left wall of which the tumor was attached by a broad pedicle. The growth was the size and shape of a split bean, the free convex surface moist and shining.

Having brought the growth prominently in view, the endoscope was closely pressed against that side of the urethra from which the polyp sprang. The penis was then well stretched and by a sharp pushing movement the tumor was easily and cleanly sliced from its base. The removal was complete and painless, slight bleeding and the wound healed rapidly.

Medicine.

A Case of Acute Intestinal Obstruction. F. C. Raynor, M. D.—*Jour. Am. Med. Ass'n.*—A colored woman, aged 57, and weighing 175 pounds, was taken with sudden and severe pains while ascending some stairs, and with difficulty was able to proceed. After reaching her room she experienced colicky pains and vomited biliary matter. Hot applications were applied for the pain, and as she was quite constipated an enema was given, this causing but little movement of the bowels. It being thought that she was suffering from a slight disarrangement of the digestive organs due to improper eating, prescribed accordingly. The vomiting continued for four days, and the patient being weak and the stomach rejecting all food and nourishment, brandy by rectum was administered. The next day the bowels moved freely, passing formed and semi-liquid stools with considerable flatus. As she had no pain, it was thought that the obstruction was a volvulus and that it had been spontaneously relieved, but two days after there was a sudden collapse and she died some hours later. A partial autopsy revealed the following:

The abdominal walls were two inches thick, no fluid in the peritoneal cavity; peritoneum normal; omentum contained a large amount of fat. There was an incipient hernia on the right side, barely entering the inguinal canal. The gut opposite the mesentery was so firmly adherent to the margin of the internal ring that it could not be separated. It was twisted on itself, and gangrenous where twisted to extent of about one square inch. The mesentery of the adherent gut formed a constricting band, which extending across to the last lumbar vertebra, passed one inch to the left side of the caput coli, and occluded eleven feet of ileum. The lower half of the large intestine was empty but the upper half contained solid fæces. The stomach and small intestine above the constriction contained fluid. The hernia having been a long time adherent occasioned troublesome symptoms, and the obstruction was caused by the intestine becoming entangled around the mesenteric band, and which twisting the gut on itself, produced the volvulus.

MASSAGE IN HEADACHE.—*Medical Age.*—Dr. Norström, finding that a good many cases of headache occur, where, though the symptoms are more or less like those of migraine, the remedies suited to that affection are of but little use, examined the heads of such patients carefully, and came to the conclusion that the pain must depend upon inflammatory thickenings, existing at the insertions of various muscles, especially the sternomastoid, the temporal, the scaleni, the trapezius, and the occipitofrontalis. These indurations do not usually produce any local pain, and therefore are generally unnoticed both by physician and patient. They are commonly the result of "taking cold," and the headaches they cause can be traced to changes in the weather. Dr. Norström obtained excellent results by regular massage of these indurated spots, the sittings lasting for about a quarter of an hour. Similar treatment is also efficacious where the headache is due, as it sometimes is, to enlarged lymphatic glands. Of course, little result can be expected from massage in headaches of anæmic or hysterical origin, or where there is organic or cerebral disease.

THE USE OF WATER AT AND BEFORE MEALS.—*The British Medical Journal.*—Opinions differ as to the effect of the free ingestion of water at mealtimes, but the view generally received is probably that it dilutes the gastric juice, and so retards digestion. Apart from the fact that a moderate delay in the process is by no means a disadvantage, as Sir William Roberts has shown in his explanation of the popularity of tea and coffee, it is more than doubtful whether any such effect is in reality produced. When ingested during meals, water may do good by washing out the digested food and by exposing the undigested part more thoroughly to the action of the digestive ferments. Pepsin is a catalytic body, and a given quantity will work almost indefinitely, provided the peptones are removed as they are formed. The good effects of water, drunk freely before meals, have, however, another beneficial result—it washes away the mucous which is secreted by the mucous membrane during the intervals of repose, and favors peristalsis of the whole alimentary tract. The membrane thus cleansed is in a much better condition to receive food and convert it into soluble compounds. The accumulation of mucous is specially marked in the morning, when the gastric walls are covered with a thick, tenacious layer. Food entering the stomach at this time will become covered with this tenacious coating, which for a time protects it from the action of the gastric ferments, and so retards digestion. The viscid contents, a normal condition in the morning before breakfast, are not suitable to receive food. Exercise before partaking of a meal stimulates the circulation of the blood and facilitates the flow of blood through the vessels. A glass of water washes out the mucous, partially distends the stomach, wakes up peristalsis, and prepares the alimentary canal for the morning meal. Observation has shown that non-irritating liquids pass directly through the "tubular" stomach, and even if food be present, they only mix with it to a slight extent.

Otology.

FOREIGN BODY IN THE EAR FOR NINE YEARS.—B. F. Dawson, M. D.—*Med. & Surg. Reporter.*—Having been informed by mother of boy 12 years of age that he had a grain of corn in his ear, which had been there for several years, an examination was made and a grain of hackberry popcorn was removed from right external auditory canal, surrounded by a considerable mass of inspissated cerumen. At the age of three years he had placed the grain of corn in his ear and it had never made its escape. The hearing was greatly impaired in both ears, and at times he was entirely deaf in the right ear. The only instruments used in removing the substance were a head mirror, ear scoop and dissecting forceps. It was of original size and shape, and the lining membrane of the ear appeared perfectly normal, notwithstanding the irritation to which the foreign substance might be expected to give rise. Hearing was found to be unaffected after the corn had been removed.

MALFORMATIONS OF THE EXTERNAL EAR IN THE SANE AND IN IMBECILES AND IDIOTS.—*Supp. Brittish Medical Journal.*—In order to determine whether abnormal formation of the pinna actually possesses such value as an indication of degeneracy as is attributed to it by many writers—notably alienists—Dr. Váli (*Allgem Wein. med. Zeitung*, March 17, 1891) examined 500 healthy men, an equal number of healthy women, and several hundred imbeciles and idiots. Of the healthy persons, 26 per cent males and 15 per cent females had malformed pinnæ. Only 50 per cent of the idiots and imbeciles had normal pinnæ.

Amongst the numerous variations observed, Dr. Váli found that prolongation and pointing of the tip of the ear were twice as common in the mentally defective class as in the sane; shortening, elongation, or bridging of the scaphoid fossa followed the same rule. Projection of the antihelix above the level of the helix was especially frequent in imbeciles; in idiots it occurred about three times more frequently than in sane persons. Partial or complete fusion of the helix with the antihelix existed twice or three times as often in inbeciles and idiots as in sane individuals. His observations further showed that in most cases the anomaly is bilateral; if confined to one side, that side usually is the left. It is rare for more than one species of deformity to exist in the same pinna.

Therapeutics.

APOMORPHINE AS AN EMETIC?—Dr. John Brown, of Bacup, asks the important question: Is apomorphine a safe emetic? and gives a brief account of his further experience of this drug. There are few, if any, of the new remedies introduced into the Pharmacopœia that in his opinion have sustained their reputation with such unvarying success, and with so few failures, as apomorphine. Dr. Brown prepares his own solution of apomorphine each 10 minims equaling one-twelfth of a grain of apomorphine. The average interval between the hypodermic injection and the emesis is about ten minutes. As a rule, the vomiting only occurs two or three times at short intervals. The depression is but what might be expected after ordinary vomiting. He has observed no case approaching fatal or even serious collapse. Only two of the cases were adults, the others were very young children. He believes that there is no emetic so safe, certain and quick for children. In adults ordinary emetics usually succeed; not so in children. The cases reported in which collapse occurred were adults.

Salicylic Acid as a Prophylactic of Scarlet Fever. Dr. G. DeRosa, (*Giomale Internazionale delle Scienze Mediche*), claims that salicylic acid is a preventive of scarlet fever. Out of sixty-six children exposed to infection, twenty-seven cases existing in one house, only three took the disease after the administration of the drug, and in those the failure was attributed to the fact that its administration had been begun too long after the exposure. Its use should be commenced immediately when there is danger of infection, and given daily, until the possibility of infection is past. It is not necessary to isolate the patients, for fear of their communicating the disease, under this regime.

Strychnine in Diabetes Mellitus.—In the St. Petersburg monthly *Meditzinskia Pribarlerüa K'Morskomu Sborniků* ("Medical Supplements to the Marine Review," published by the Russian Admiralty,) May, 1888, p. 398, Dr. O. V. Korjenevsky, of Astrakhan, details a remarkable case of diabetes (of obscure origin, in a strongly built naval officer) cured by the internal use of strychnine in ascending doses.

Pilocarpine.—Pilocarpine aids very materially the absorbent properties of the iodides and mercurials.

Atropine in Hemoptysis.—Subcutaneous injections of $\frac{1}{125}$th to $\frac{1}{200}$th of a grain of sulphate of atropine is highly spoken of in obstinate cases of hemoptysis.

Cocaine in Carcinoma of Stomach.—Cocaine, in doses of gr. ¼ ter die, succeeded in controlling the *vomiting* of carcinoma of stomach after all other means had failed, in a case shown the class at Pennsylvania Hospital, by Dr. Meigs, recently.

Helleborein as a Local Anæsthetic.—Venturini and Gasparini (*Internat. klin. Rundschau*, April, 1888) found by experiments on rabbits and dogs, that instillations of weak solutions of helleborein ($\frac{1}{6}$ gr. per drop) into the conjunctival sac cause after about fifteen minutes anæsthesia of the cornea; half an hour after the first application the first signs of returning sensibility appear. Pupil, eyelids, acuteness of vision, intra-ocular pressure, remain unaffected; no symptoms of irritation are observed. Extract of strophanthus, too, is said to possess anæsthetic properties.

Biniodide of Mercury in Diphtheria and Scarlatina.—In the *Medical Age* of December 10 there is an article on the use of biniodide of mercury in diphtheria and scarlet fever. The author states that he had never known of its use in those diseases before he used it, and in four years in more than eighty cases of diphtheria, he never lost a case.

Opiates in Diabetes Mellitus.—In a paper on the relative value of opium, morphia and codeia in diabetes mellitus, read before the section of pharmacology and therapeutics of the British Medical Association, Dr. Thomas R. Fraser said that he had arrived at the following conclusions:

1. The case was one in which mere restriction of diet did not have so marked an effect as occurs in many cases. The prospects of successful treatment were not, therefore, very hopeful.

2. Codeine had a very decided effect in reducing the quantity of urine, sugar and urea. When contrasted with the reduction produced by restricted dietary alone, the addition of nine grains of codeine in the day lessened by about one-third, and of fifteen grains of codeine in the day by about one-half, the quantity of fluids drunk, and the quantity of urine, sugar and urea, and it slightly reduced the specific gravity of the urine.

3. The addition to fifteen grains of codeine of the one-twentieth, and afterward of the one-tenth of a grain of sulphate of atropine, caused a still further, though not a large, reduction.

4. After the administration of codeine had been stopped, an interval of six days on restricted diet, without any medicinal treatment, was not sufficient for a deterioration to occur to the conditions present before codeine had been given.

Salicylic Acid a Diuretic.—Huber regards salicylic acid as one of our promptest and most important diuretics. This conclusion, at which he arrived through a series of clinical trials, has also been confirmed by the experimental researches of Larggaard. The diuretic virtues of the drug are most pronounced in rheumatic polyarthritis and nervous pleuritis, while in typhoid fever and pulmonary tuberculosis the drug is less active.

Salicylate of Sodium in Gonorrhœal Orchitis or Epididymitis.—Pignoret, of Paris, thus concludes a paper on this subject:

1st. In gonorrhœal orchitis, salicylate of sodium will bring about a diminution of pain in a few hours, and in a longer time it will cause its disappearance.

2d. It acts well above all in cases that have acute epididymitis.

3d. When the inflammation of the cord is intense, the remedy will fail.

4th. In the large number of cases treated, the resolution of the swelling commenced very much quicker than in cases submitted to other treatment, and in a week or ten days the cure was complete, leaving nothing but a slight induration.

5th. This medication, then, has the advantage of allowing the patient to get about within a day or two at most. It is simple, harmless, and appears to be superior to all other forms of treatment in this complication.—*Phil. Medical Times.*

Septicæmia and Puerperal Thrombosis, Treatment by Massage, Sparteine and Exercise; recovery.—Dr. D. Antonio Peñafiel, of Mexico, reports an interesting case under the above title. The massage was applied to the œdema caused by the thrombosis. He believes massage and mechanical exercise was a very important part of his treatment. The sparteine was given in daily doses of from one milligramme to one centigramme, and it had an almost immediate effect upon the heart. It increased the quantity of urine without causing the inconveniences seen in the administration of other diuretics, and without showing any cumulative action. The diet in this case was almost exclusively of milk. The case was not one of classic Stokes' fatty degeneration, the diminution of cardiac force being neither permanent nor uniform. There were no cerebral symptoms, and no disturbance of respiration in consequence of left ventricular weakness. The heart was rather in a state of obesity than of fatty degeneration.—*Gaceta de Médica de Mexico*, Tom. 23, Ent. 5.

Dermatology.

CASE OF FACIAL LUPUS HEALED BY KOCH'S METHOD. —Thos. Whiteside Hime, B. A., M. D. *The Lancet.* —The patient under treatment by Koch's method from Dec. 30th, 1890, to March 13th, 1891, has been discharged completely cured of his disease as far as all evidence shows. His history gives a scrofulous ancestry on maternal side, while the paternal were free from such taint. The man is forty-two years old, and was healthy until he arrived at eighteen years of age, when a hard nodule appeared in front of the right ear. This grew slowly for three or four years, then began to suppurate, and continued discharging for a long time, leaving a white glassy scar about an inch and a half in diameter, with some pinkish lines running across it.

About four years before coming under observation a roughness of the skin made its appearance between the eyebrows, and a pimple on the edge of the left nostril, the latter raw, scabbed from time to time, gradually spreading over the left nostril, end of the nose, and round to the right side, extending up the ala of the left nostril and about a quarter of an inch down the cheek from the angle of this nostril and cheek. A few months after another pimple formed on the cheek about half an inch from the left corner of the mouth, another on the right upper eyelid, and a few months later, still another appeared one inch below the eye on right side. The disease having been pronounced lupus, the skin was scraped and the wounds remained healed for some time, but finally broke out worse than before. The operation was repeated three different times, but always followed by a return of the disease until nearly the whole of the nose became purple red, hard and brawny, the end discharging pus, and the left nostril partly eaten away. The right upper eyelid was scabbed and red, the left red, and the spot at the corner of the mouth brawny, red, and discharging.

On the 30th of December he received his first injection, the initial dose being much smaller than is frequently used in Berlin. The temperature of patient rose to 103°; he had severe rigors and headache, face became greatly swollen so that it was impossible to open his eyes, or breathe through his nostrils, and he was very heavy, drowsy and perfectly deaf. The symptoms gradually passed off and the bowels and kidneys acted well, the quantity of urine voided being normal with slight exception. The effect of the first injection was to cause the dark red edge of the right nostril to ulcerate, the raw surface extending for a couple of weeks, when it began to heal. After the third injection the spots on the right lid and near the mouth were deeply excavated and suppurating and after the ninth injection the extensive scabs which covered the left side of the nose and left upper lip had fallen off, and the ulceration had healed. The moustache fell out after the tenth injection and had all the appearance, even when seen under the lens of being permanently depilated, but in a few months began to grow well again. In all 27 injections of tuberculin were given.

Patient was allowed to take considerable exercise, often walking several miles, and at the time of leaving the hospital his face had greatly improved. There was no scab or raw spot anywhere, and the redness had entirely disappeared, and also a small portion of the tip and each side of the nostril, but this was scarcely perceptible. There were also some small scars on face, but of slight consequence. Patient had gained some pounds in weight at the time of leaving hospital and his condition was very satisfactory.

Book Reviews.

TREATISE ON NEURALGIA. By E. P. HURD, M. D. Geo. S. Davis, Publisher, Detroit, Mich. Physician's Leisure Library.

A number of the Physician's Leisure Library have already been issued, but we know of none more worthy to find a place in the library of the practical physician than the one before us. The book is divided into chapters which treat of the general considerations and classifications of neuralgia; causes and particular forms, diagnosis, prognosis and treatment. The work is certainly exhaustive and is valuable to the practitioner.

THE SUPPRESSION OF CONSUMPTION. By G. W. Hambleton, M. D. New York: N. D. C. Hodges, 1890. Paper; pp. 87. Price, 40 cents.

This little book is one of "Fact and Theory Papers," and as its title suggests is full of valuable information in regard to this dread disease. The author states that there are upward of 60,000 deaths every year in the United States alone from consumption, attacking alike both the rich and the poor, and any agent or scheme affording a hope of limiting its ravages is sure to gain the ear of both profession and people. Nothing that yet been proposed has stood the test of experiments or experience. In the work Dr. Hambleton states that consumption is the direct result of the reduction of the breathing surface of the lungs below a certain point in proportion to the remainder of the body, and is produced solely by conditions that tend to reduce the breathing capacity. Arrest, or complete recovery has followed the adoption of measures that compensate for or counteract these conditions.

IRREGULARITIES OF THE TEETH AND THEIR TREATMENT. By EUGENE S. TALBOT, M. D., D. D. S., Professor of Dental Surgery in the Woman's Medical College; Lecturer on Dental Pathology and Surgery in Rush Medical College, Chicago. With 152 illustrations. 8vo, pp. xi—168. 1888. Philadelphia: P. Blakiston, Son & Co.; Chicago: W. T. Keener.

This is an exceedingly practical work, and it may be safely predicted that it will be favorably received not only by members of the dental profession but by the physicians. The first part of the book is devoted to the anatomy and irregularities of the teeth, and the second to the various means and methods of treating irregularities. It is written in a concise style, well printed and illustrated, and we commend it as a valuable addition to any library.

THE DAUGHTER; Her Health, Education and Wedlock, by William M. Capp, M. D. 12mo, cloth, pp. 150. Philadelphia. F. A. Davis, Publisher. 1891. Price $1.00.

We know of no similar work which covers the same ground in a brief and practical manner. It is a neat little volume of 150 pages, and is intended for popular reading, the aim being to enable the mother to more intelligently help the medical adviser in his visits to the family, and practically instruct woman in her relations to her children. It is written in a popular vein and in simple and untechnical language, and can be read with profit by every woman in the land.

Items of Interest.

A cup of hot milk with clam juice is said to be excellent for persons affected with debility or suffering from insomnia.

It is claimed that half a teaspoonful of chloride of ammonium in a goblet of water will almost immediately restore the faculties and powers of locomotion to a man who is helplessly intoxicated.

A lion lives 20 years; a squirrel lives 8 years; a camel lives 40 years; an elephant lives 400 years; A bear lives 20 years; an ox lives 25 years; a dog lives 14 years; a guinea pig lives 7 years.

$30,000 has been collected in Louisville, Ky., for the establishment of a children's hospital, to be a memorial of the destructive tornado which passed over that city. A public calamity will thus become a blessing in disguise.

A Crematory in Troy.—The new crematory to be erected in Oakwood Cemetery, Troy, the gift of Mr. Wm. S. Earl, will probably cost $150,000. It is to be of granite, 136 feet long and 70 feet wide, and will be a mortuary chapel and retort.

M. Lessenue states that if a pin be thrust into the body of one supposed to be deceased, the appearance of the pinhole left on withdrawing the pin will determine the accuracy of the supposition. If the person is dead, the hole remains open as when a pin is stuck into leather. If the person is alive, the skin contracts and the pinhole entirely disappears.

The trustees of Columbia College have determined to devote the late Mr. Charles M. Da Costa's bequest of $100,000 to the foundation and endowment of a laboratory of biology, to be built on the grounds of the medical school (the College of Physicians and Surgeons), and that the professor in charge of the department is to be designated the Da Costa Professor of Biology.

A curious application has been made of the absorbable properties of lanolin in the treatment o wrinkles. Although not strictly speaking a patho logical condition, it is one which is even more serious because less avoidable, even than freckles. When well rubbed in lanolin passes directly into the skin and acts as a nutrient to the subjacent tissues, with the effect of smoothing out the folds produced by the attenuation of these structures incidental to age. Several elderly ladies who were induced to give this method of treatment a trial, are said to have been delighted with the result.—*Medical Press.*

More than one-seventh of the human race die of tuberculosis. The number of those who die of it every year in Europe alone is about 1,000,000. In this city for the year 1889 out of 39,583 deaths reported the cause of 5,163 was phthisis, while to bronchitis were assigned 1,792. The average age of those who died of tuberculosis in this country in 1880 was only 37 years. The magnitude and importance of a discovery such as this which appears to have been made by Prof. Koch can be realized only by those who know how great the continuing mortality is and how much sorrow, loss, and suffering are caused by it in all parts of the world.—*New York Times.*

Wit and Humor.

Teacher—Late again, Johnny! Remember, Johnny, it is the early bird that catches the worm. Johnny, solemnly, "I already got 'em."—*Ex.*

Doctor: "I will leave you this medicine to take after each meal."

Mike: "And will yez be koind enough to lave the meal, too, doctor?"—*Tid-Bits.*

She—Oh, my tooth aches just dreadfully! I don't see why we cannot be born without teeth.

He—I think, my dear, that if you will look up some authority on that point you will find that most of us are.—*Omaha World.*

Drug Clerk—Woman in front, with eyes rolling and hair flying, wants to buy some poison. Druggist—Poor thing! I suppose her house is so full of rats she is almost crazy. Give her a pound.—*Philadelphia Record.*

A Heavy Dose.—This is the order which a little girl brought into a Lewiston druggist's store the other day. It was written on a dirty piece of note paper, as follows: "Mister druggist: Please send ipecac enough to throw up a four-year-old girl."

Dullard—So, old man, Richly is dead at last.

Brightly—I wonder he lived so long with all the doctors. Why, Dr. Scalpel had a hack at him, Dr. Piller had a hack at him and a dozen others.

Dullard—And now the undertaker has him.

Brightly—Yes, by gum! and he's the worst. He got seven hacks and a hearse at him.—*Lowell Citizen.*

In Bad Shape.—Visitor, to sick woman: "How are you feeling this morning, Mrs. O'Toolihan?"

Mrs. O'Toolihan: "Och, leddy, it is that bad oi am wid a complication av troubles—rheumatism, lumbago, and all; and it was only this marnin' that the doctor, Hiven rist his sowl, said there were decided symtims of convalescence."—*Bazaar.*

"Although he wishes it from birth,
And covets it through life's brief span,
Man never, never gets the earth—
It is the earth that gets the man."

The above verse adorns an undertaker's card in Nebraska.

Arizona.—First doctor: "Got back already from Arizona?"

Second doctor: "Yes; I don't like it out there."

"What's the matter?"

"If you have a case of small-pox and don't report it to the board of health, you are fined and imprisoned; if you do, the relatives fill you full of buck-shot. It ain't a healthy country for a young doctor."—*Chicago Medical Standard.*

Mark Twain once stopped at the house of a friend who had seven children, one of whom, a boy, was at the time suffering from a scurf on his head. The boy's mother was telling Twain about it, and asking him what she had better do. Twain inquired very carefully about when the scurf first appeared, what the symptoms were, and what remedies had been employed. Then, after thinking a moment, he ran his fingers through his hair, and said: "Try sandpaper."—*Med. Age.*

Western Medical Reporter.
A Monthly Epitome of Medical Progress.

VOL. XIII. AUGUST, 1891. No. 8.

ORIGINAL ARTICLES.

A Review of Varicocele and its Treatment*

CONTINUED.

BY G. FRANK LYDSTON, M. D.

Professor of the Surgical Diseases of the Genito-Urinary Organs and Venereal Diseases in The Chicago College of Physicians and Surgeons. Fellow of the Chicago Academy of Medicine and of the Southern Surgical and Gynæcological Association.

In discussing the merits of the various operative procedures for varicocele it is not necessary to take them up in detail; the *raison d'etre* of many of the specially devised (?) and named operations is apparent only to the operator. The indication in all operations is to limit or suppress the circulation in the plexus composing the varix. For our purpose, the various methods may be divided into 1, Acupressure; 2, Subcutaneous deligation; 3, Open deligation; 4, Deligation with resection of veins; 5, Deligation with resection of scrotum; 6, Resection of the scrotum.

1. The employment of *acupressure* at the present day is an evidence of a lack of faith in modern antisepsis, and to my mind is much like the Dutchman's method of cutting off his dog's tail, "an inch at a time so that it wouldn't hurt him so much." Gradual obliteration of the veins by pressure—with or without ulceration—has all the dangers of immediate deligation as far as sepsis and trauma are concerned, and moreover these dangers are continuously incurred from start to finish, whether the process requires a few days or several weeks. I include under the term acupressure all the methods involving gradual obliteration of the veins. The dangers of acupressure are in a measure similar to those of subcutaneous deligation, shortly to be described.

2. *Subcutaneous deligation* is not an essentially dangerous operation in skillful hands. Unfortunately, however, the rank and file of operators are not as skillful as some of those who claim such extraordinary success with this method. Simple as the various methods of subtaneous ligation may appear, serious accidents have occurred. The operation is done in the dark, so to speak, and more tissue is included than is essential to the cure of the varix. A certain amount of cellular tissue is certain to be included with the mass of veins, and the strangulation of this tissue is not conducive to safety. The veins also may not be completely strangulated. The following case by McKay illustrates this point:

"In the early summer of 1888 I was called in by Dr. Habib Tubagy of Beyrout, Syria, to operate on Mr. Nasif, an unmarried carpenter of that city. Two days previous to this he had been operated on by Vidal's method, but as there was considerable swelling of the scrotum, and he was suffering much pain, he desired the radical operation by the open method. After thoroughly cleansing the parts, an incision was made similar to, but somewhat shorter than, that in the former case. The wires were found enclosing the blood-vessels and much cellular tissue, and not tight enough to entirely arrest the flow of blood."

A portion of scrotal tissue may be included in the loop of ligature unless great care be taken. The veins being squeezed up *en masse*, there is less security against secondary hemorrhage than when they are ligated separately. Scrotal hæmatocele, phlebitis, septic infection, thrombosis and embolism are possibilities. Regarding the latter, however, it is my opinion that there is more danger of thrombosis and embolism in gradual occlusion of the veins than in their cleanly individual deligation.

Subcutaneous deligation, while not so dangerous in this respect as acupressure and its congeners, is more so than a neat open operation. Strict asepsis neutralizes all possible claims for the timid and haphazard deligation in the dark. Surgeons of some experience have included the vas deferens in the loop of ligature or wire with resultant atrophy of the testis. A case of this kind has occurred in Chicago. Atrophy of the testis, however, does not necessarily imply inclusion of the vas deferens, as ligation of the spermatic veins alone has produced it. I believe that the danger of atrophy has been over rated. Severe varicocele is attended by atrophy of the testis; sometimes to a marked degree; as the varicocele subsides this degenerate condition becomes apparent. Tetanus is one of the possible results of inclusion of the vas deferens.

Richet, in practicing the method of *enroulement*, has observed that a vien with hardened and thickened walls is occasionally found in the midst of the mass composing the varicocele, which may be mistaken for the vas deferens. He relates a case in which both himself and Denonvilliers were in doubt in the performance of Vidal's operation.

Richelot cites a similar case. Many surgeons believe that the chief danger of ligation subcutaneously is inclusion of the spermatic artery, which is deeply situated amid the mass of veins composing the varix. Ligation of this artery, it is claimed, leads to certain atrophy of the testis. This is the opinion of Gosselin, and following him, Levis, Gouley, Jenks, Malgaigne and Henry. Nicaise is also very chary of tying the artery. Malgaigne holds that it is impossible to avoid the artery and that therefore, subcutaneous deligation is equivalent to castration. Guyon and Richelot claim that the arteries of the vas deferens and cord proper, are sufficient to preserve the nutrition of the testicle.

W. H. Bennett remarks on this point as follows:

1. That vas deferens having been displaced in the manner usually adopted in operations for varicocele the spermatic artery does not accompany it, but remains with the spermatic veins.

2. That in cases of varicocele the division of the main trunk of the spermatic artery, together with the veins, if the ordinary principles of surgical cleanliness be observed, is not only harmless to the testicle, but probably aids in the ultimate relief of the affection by diminishing the pressure of blood going to the testis at the time when almost all the returning veins are suddenly obliterated.

3. That the division of the deferens, spermatic artery, and spermatic veins, which entails a section of

*Read at the Meeting of the Southern Surgical and Gynæcological Association, Nov. 11, 1890.

apparently the whole cord, is not necessarily followed by sloughing, or even subsequent wasting, of the testicle, provided that a perfectly aseptic condition of the wound is maintained. *

With reference to the same subject, A. W. M. Robson says:

"In 1886 I published a series of ten cases of varicocele treated by excision, the operation differing very slightly from that recommended by Mr. Bennett in his paper published in *The Lancet* of Feb. 9, 1889. I have had the opportunity of seeing many of these cases since, and find that there has been absolutely no atrophic change or other apparent alteration in the testicle, and yet in all of them not only was the bundle of veins but a portion of the spermatic artery removed, for it is quite easy, as Mr. Bennett says, to see the open mouth of the artery in the mass of tissue removed, leaving no doubt about its division. In all my cases an aseptic course was pursued, and in none was there any trouble from orchitis."

FIG. 4. FIG. 5. FIG. 6. FIG. 7.

Fig. 4.—Keyes's improved needle for varicocele.
Fig. 5.—Keyes's varicocele needle, plain.
Fig. 6.—Whitehead's varicocele needle.
Fig. 7.—Reverdin's needle.

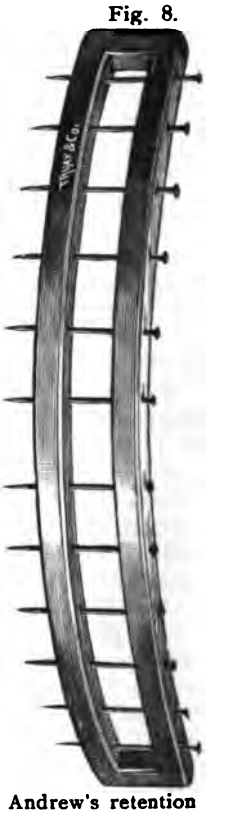
Sir James Paget reported a case of Pyæmia following subcutaneous deligation. Curling spoke of several cases of *enroulement* practiced by Roux, in which death resulted. Thievenow had a case of death from septicæmia. Howe reported a fatal case of peritonitis after ligature. That severe pain and even tetanus should be liable to occur in subcutaneous deligation, is not surprising if we take into consideration the numerous and sensitive nerve filaments which supply the involved parts. The inclusion of these nervous structures in the ligature is to a great extent unavoidable. The danger is reduced to a minimum however, by care in separating the structures of the varicocele, and including as little tissue as possible in the ligature.

I do not, however, condemn subcutaneous deligation in toto, and have performed it myself a number of times. In proper hands and under some circumstances it is well enough. I believe nevertheless, that there are better and safer methods.

There is no real necessity for special or complicated needles and other devices in this operation, although some one of them may be used if at hand. Juniperized silk is probably the best substance for ligature.

After proper antiseptic precautions the scrotum is gathered up in the hand and transfixed from before backward with a small tenotome; the knife is then withdrawn and the scrotum allowed to drop back in place. A fine stiff probed (eyed) threaded with juniperized silk is now passed through the punctures between the veins and vas deferen, and passed back outside the veins still carrying the ligature, to emerge at the point of original entry in front. The probe is removed and the ligature tied and dropped. The usual precaution of rest is now taken. Any of the various forms of needles may be used if desired. The results of subcutaneous deligation when properly performed are certainly good, a large proportion of cures resulting. This in a measure compensates for certain undesirable features of the method. Figs 6 to 9.

Fig. 8.



Andrew's retention clamp for varicocele.

3 and 4. There is little choice between *open deligation without disturbance of the veins and deligation with resections of the veins* excepting possibly, (this being very remote,) the additional danger of sepsis in the latter. Division of the veins with the cautery wire is as yet untried, but in spite of the favorable report of its originator.*

I believe it to be the most dangerous operation yet devised. The dangers of the open method are in a less degree those of sub-cutaneous deligation with the exception of that of inclusion of the vas deferens—this cannot occur. If the open method be selected the point of election should be as high up as possible, and as small an incision made as is practicable to work through. The veins are thus ligated in their straight portion with very little mauling about of the cellular tissue. The higher up the deligation the less the danger of sepsis, cellulitis and a trophy of the testis, the latter advantage being possibly due to the avoidance of trauma of the smaller veins, upon which we must rely for return circulation after oblit-

Lancet, March 7, 1891.
Brit. Med. Jour. March 21st, 1891.

*Gould.

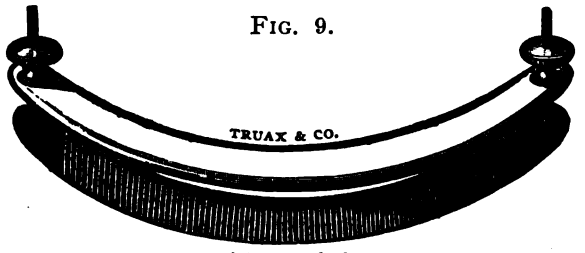
eration of the vessels composing the varix. In a general way it may be said that deligation at a single point in each vein is safer than at several points in the same vessel; it is also quite as effectual. The results of the open method performed in this manner are excellent and the danger under antisepsis is very remote.

5. *Deligation with Resection of the scrotum.*—I consider to be the ideal operation in by far the majority of cases demanding surgical interference. Much depends on the method of performance;—the important details as far as the danger to life is concerned, affecting chiefly the deligation. Under proper antiseptic precautions I do not believe that the scrotal amputation complicates, or at least enhances the dangers of the operation. Deligation with resection is indicated where the varix is large and the scrotum very lax and pendulous. The removal of the latter gives the best prophylaxis against recurrence of the varix. The results are likely to be better than those attained by any of the other methods.

6. *Resection of the scrotum* is the safest operation for varicocele and according to Henry is a radical cure in the true sense of the term. He reported fifty-nine operations some years ago, which as far as he could learn were radically successful. This same operator has since reported a number of cases at various times, for which he claims an equal degree of success. In my early experience with Henry's operation I was inclined to accept the statements of the ardent advocates of the method without much question.

A wider experience and observation has, however, convinced me that too much has been claimed for the operation. To be sure, as Henry *naively* says, it makes little difference if the operation is again necessary after a lapse of years, as the method is perfectly safe, but this is begging the question in regard to an alleged "radical cure." In very large varicoceles the

FIG. 9.



Lewis' scrotal clamp.

changes in the texture of the venous walls are such that pressure and support alone are insufficient to secure restoration of their natural consistency and caliber, even though the pressure be sufficiently firm and continuous. There is little elasticity in the remaining portion of the scrotum, and the tone of the part is apt to remain as impared as before the operation—the same constitutional conditions prevailing. It is my opinion that stretching and relaxation of the new "natural suspensory" or scrotum will recur in the majority of severe cases sooner or later. The varicocele may not be as severe as before the operation and the more urgent symptoms may bs relieved, but there is nothing edifying in the spectacle of a good sized varix a few years or perhaps months after a so-called radical cure.

I desire to do the method full justice however, and am free to say that the subjective symptoms do not always recur *pari passu* with a return of the varix; but I am discussing a "radical cure" and hair-splitting is unnecessary. The patient is apt to forget the original subjective symptoms and gauge the value received by the ocular and objective evidence at his command.

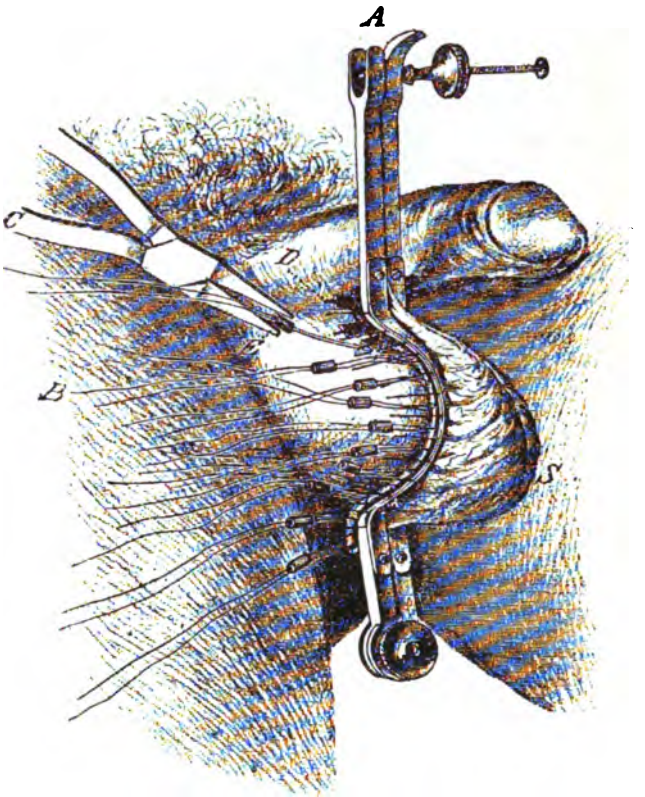


FIG. 10.

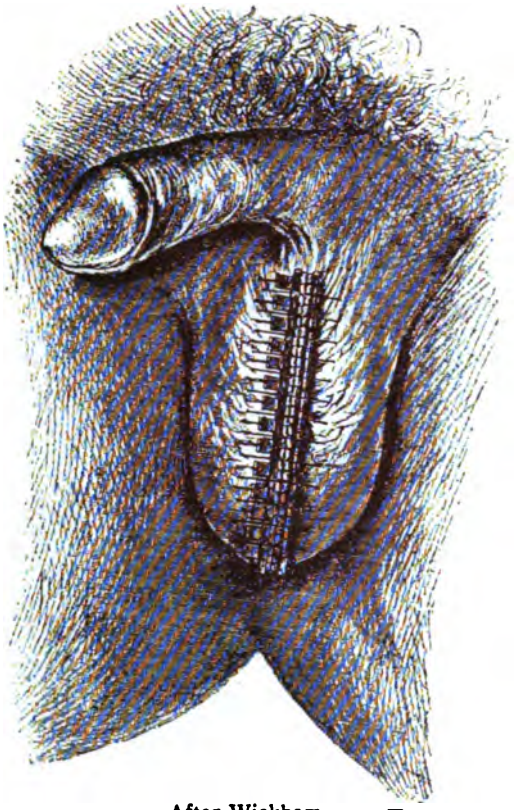
In moderate varicoceles and in quite young subjects the scrotal tissues are apt to retain a certain degree of consistency and elasticity, and the veins have not usually entirely lost their normal tone. Under these circumstances scrotal resection is the ideal operation. It is far better, in my opinion, for a patient to submit to this operation than to be annoyed by suspensory bandages for the rest of his days. It is safe, when properly performed, and gives an ideal result.

One of the most systematic operations for variocele is that advocated by M. Edmond Wickham. This surgeon uses the Horteloup clamp and performs the operation with the strictest antiseptic precautions. The novelty of his method consists in his mode of fastening the sutures. The sutures are passed a short distance apart, and are double; at one extremity they are fastened to a thin strip of lead moulded to accurately fit the curve of the scrotum after its curtailment. The sutures are passed through between the blades of the clamp before its removal. Between each suture is passed a hare-lip pin. Small sections of lead tubing are passed over the ends of the double sutures, and at the completion of the operation are clamped down firmly in a manner similar to that employed with split shot.

I append illustrations of Wickham's method, not because I recognize its superiority, but because the cuts represent quite accurately the proper method of application of all forms of clamps and the passage of the sutures. As already remarked in connection with the Horteloup clamp, I am inclined to believe that

there is likelihood of too much scrotum being left where this clamp is used for the purpose of outlining

FIG. 11.



After Wickham.

the proper amount of tissue for removal.

In describing what I believe to be the ideal method for large varicoceles it is not my intention to advocate it as a routine practice. The surgeon must necessarily at all times use his best judgment and select the operation apparently best suited to the exigences of the case in hand.

I will simply describe the method which I believe to be the safestand nearest approach to a radical cure in the vast majority of cases of pronounced varicocele. I shall not follow the usual custom of claiming the method by virtue of some little modifications of technique. As I have already hinted, the *raison d'etre* of so-called special methods usually exists only in the mind of the operator. I do not know whether this particular combination of the old and new is practiced by others, nor do I consider it material to the subject in hand.

FIG 12.

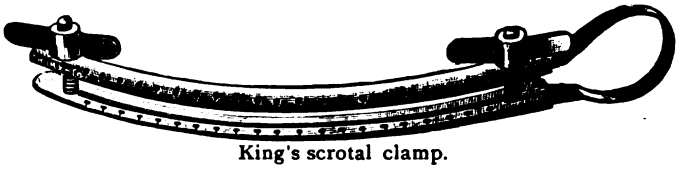
Henry's improved scrotal clamp.

If it is so practiced the operator is privileged to label it to suit himself, providing he will permit me to use the label.*

The bowels having been emptied by a saline or castor-oil, the latter being perhaps preferable, the scrotum, pubes and thighs are thoroughly scrubbed with green soap and bichloride $^1/_{2000}$ and then bathed with a bichloride solution $^1/_{1000}$.

This completed the patient is anæsthetized during which process the scrotum is wrapped in a towel wet with the bichloride solution. It is hardly necessary to say that the operator is now supposed to wash his hands and remove all superfluous subungual organic matter. Everything, including the operator's conscience being thus prepared and all instruments having been asepticised by boiling water, an incision one inch or a little more in length is made beginning just below the external abdominal ring and parallel with the spermatic cord. This is carried down until the cord and its accompanying veins are exposed. The number of veins varies in my experience; they are here quite straight and when emptied of blood quite small. The cord and veins are hooked with an aneurism needle out of the wound which is meanwhile occasionally irrigated with bichloride solution; the veins are now separated and several of the larger ones ligated with a single ligature of medium sized juniperized silk; the ligatures are cut short and the veins and cord dropped back in place. If there is any difficulty in reposition of the cord it is readily overcome

FIG. 13.



King's scrotal clamp.

by traction on the testicle. The wound is now irrigated and thoroughly dried, towels instead of sponges being used for this purpose. Sponges are far inferior to soft soft towels for checking oozing and for many reasons to be preferred. Several fine stitches of juniperized silk are now inserted, the wound closed and

*Since this article was written I have noted the following by A. B. Barrow:

"I have simplified the operation of varicocele slightly, by making the incision over the external abdominal ring only, and not extending it into the scrotal tissues at all, as I found that it was quite easy to pull up the veins into this limited opening and ligature them; and in this situation there is no liability to injure the vas deferens, so I have discontinued the use of the pins I then recommended. But I attach the same importance to that point in which I advocated the clearing and ligaturing the veins first at the external abdominal ring, where it is easily done; and, having cut them through, to pick up the distal ends of the veins, and lifting them up to strip off the surrounding tissues of the cord as low as the upper part of the testicle; then apply the lower ligature, cut the veins through again, and allow the testicle, which has been drawn up to the wound, to slip back into the scrotum. In this way I have operated upon a large number of cases, in a few instances removing the veins of both sides at the same operation, and often doing the operation in association with the radical cure of hernia, and I have had unvarying success both as regards the rapidy of healing of the wound, the cure of the affection, and the satisfactory condition of the testicle. Several cases have been afterward admitted into the services.

"I have not found the testicles diminish in size in any case, but, on the contrary, it usually increases. In some cases I have observed that there is a tendency for the tunica vaginalis to become slightly distended with fluid when the patient first begins to walk about, but this condition disappears during the night when the patient is lying down."—*Brit. Med. Jour*, March, 21, 1891.

dusted with iodoform. During the remainder of the operation the wound should be compressed with antiseptic gauze by an attendant. The next step is the application of the clamp—I have used both Henry's and a modification of King's clamp,* but any other good clamp will do. (Fig. 12.) Care should be taken to divide each side of the scrotum equally, and to include sufficient tissue in the clamp. As already observed it is well-nigh impossible to remove too much. I have operated in cases where I have removed the clamp after excision of the scrotum for the purpose of ligating a vessel and have found so little tissue left that I had extreme difficulty in covering in the testes, yet the new scrotum has not only proved sufficient, but I have wondered whether it would not have been practicable to remove more tissue.

To be continued.

Christian Science or the Faith Cure Craze.

By Dr. W. S. Strode, Bernadotte, Ill.

Read before "The Military Tract Medical Ass'n," at Bushnell, Ill., Oct. 23d, 1891.

Some fourscore years ago an ingenious gentleman of Leipsic announced to the world that he had discovered the rational treatment of disease to consist in the administration of drugs in doses of such an infinitessimal quantity that the patient could scarcely expect to obtain even a fleeting smell of the medicament.

Little did Hahnemann think that in the year 1889-90 the system which he promulgated would be taken up and elaborated until it would be shown that as a drug increased in power and efficacy the more it was attenuated, until finally its greatest effects were produced by its entire disappearance—that the mind itself is the great active principle in the cure of disease, and further that disease, decay and death are all the results of imagination and can be abolished by mental power alone; that disease and death are but the shadowy creatures of a perverted mind and in reality do not exist except in the imagination of the individual; that there is no evil in the world, but that all is good or God.

This is the theory of practice as set forth by the so called Mind curers, Christian Science healers, and Faith cures--different names for the same methods that are appeals to the imagination of oversensitive or nervous persons, or to their belief in the supernatural.

These healing "fads" have not been unknown to the medical profession for many centuries.

Periodically some new "craze" or "cure" is announced, has its day, disappears and is supplanted by another, each one for a time finding its believers and its victims.

The human mind, or at least as it is constituted in a certain phase of humanity, always will be found believing in and seeking after strange and supernatural reliefs from ills of mind and body, real or imaginary. It is on this knowledge that quacks, patent medicine venders, mesmerists, mind curists, etc., find a field for working their different methods for the correction of supposed ills to which nervous and imaginative women, and aged, infirm and impressible men are heir.

Whenever a new cure or new theory is announced, it is at once seized upon by the fanatical, the corrupt, and the licentious, and it is heralded abroad to a gullible public, that it is the great cure-all; that its benefits and effects apply equally to all colors, creeds or physical conditions; and that all diseases, from cancer to consumption, yield to its most potent influence.

Had the Mind curers and Christian Science healer confined their treatment to the hysterical, to nervous disorders, or to the great army of fat-headed human beings whose great and constant fear of death leads them to continually imagine that some serious ailment is about to possess them, which needs must be exercised by the application of remedies, then no harm would have been done.

But, as is generally the case with fanatics, they imagine no limit to their powers and boldly undertake the treatment of most serious diseases and even of incurable ailments, in every case assuring the too credulous patient that an entire cure will surely follow.

In slight ailments and ordinary diseases, this may well be done, for it is well known that about twenty-eight out of twenty-nine persons that take sick will get well anyhow.

But the mind curers having no knowledge of pathology of disease boldly undertake the treatment of diphtheria, consumption, cancer, blindness, deafness, etc.

Some months ago, wishing to learn particularly of the modes of treatment as conducted by the "Mind curers," I addressed a letter to a lady in Georgia who conducts a college devoted to this so-called science, in which the modest sum of fifty dollars is charged for a five weeks' course of one lecture a day —board, seven to ten dollars per week.

I asked for the address of a few individuals that had been cured of diseases by her plan of treatment.

The addresses of about twenty persons were received, and I wrote to nearly all of them, asking for a statement of their case and present condition, permanency of cure, etc.

The answer was almost invariably to the effect that the miraculous cures which had been heralded forth all over the country through her paper, were no cures at all, the patients saying that they were not yet well, but hoped to be soon, and in a majority of the cases, the writer wished to treat me for an ailment which I did not have, but in my letter had merely asked their opinion in regard too, and almost invariably intimating that the treatment would be much more apt to succeed if the money for the same was sent in advance—five dollars a week please?

Some years ago a lady evangelist struck Bernadotte, and announced that she possessed the power to heal by the Faith cure treatment and the laying on of hands.

It is needless to say that she soon had a large following. Persons with real or imaginary diseases flocked to her. Females given to having "spells," as they familiarly term it, largely predominated but it was also noticeable that there were not a few of the lords of creation who sought her aid for relief for some physical ailment. This ailment it was remarked in this class, nearly always lay below the belt, in the region of the stomach or lower bowels, and no relief was experienced until the laying on of the fair evangelists hands or massage treatment had been resorted to.

Among this class was one minister with defective eyesight of many years standing. His eyes were

*King's clamp is lighter and less bunglesome than Henry's.

rubbed, spittle applied, prayers given, after which he was ready to affirm at the suggestion of the Christian Scientist, that his eyesight was very much improved. And yet this minister to-day nor at that time could see to read a text from the bible.

A lad of eighteen, entirely blind, had his eyes rubbed, spittle and clay applied, and at the lady's suggestion stood up in meeting and said he could see quite well. Hearing of the occurrence, an hour afterward I tested the boy with bright colors and ascertained that he could not see a particle—and some months afterward he confessed that at the suggestion of the woman preacher he had practiced deception. And yet this wonderful cure was heralded far and near over the country, printed in the papers as a miraculous healing and doubtless fully believed by a large army of persons who yet think that the day of miracles is not passed. While professing to heal all manner of diseases as they existed in others, her efforts at healing seemed utterly ineffectual when applied to her individual ailments. For all the time when she was healing the multitude by faith, by prayer, and by rubbing, I was treating her for goiter, bronchitis, and various other ailments.

But this craze, like many other fads, had its day, fell into disrepute and a year or two afterward the hypochondriacal, the nervous and hysterical were having their spells again the same as ever.

And the Christian healer had made the mistake of remaining too long in one place, when she should have moved on to new conquests, and not one of the many that had formerly done her so much honor was left that would show her common deference.

I could give many instances in my professional experience of wonderful cures performed by the followers of the various healing "fads" that have sprung up within the last ten years, but it is useless. Every physician here has had more or less experience in these matters and seen or heard of these wonderful cures that were not cures; of terrible diseases that were not diseases at all.

Every physician learns early in his career the therapeutic power of *hope*. But conscientious physicians cannot do what Christian scientists do—give promise of cure to persons whom they know positively can never recover.

An honorable physician's faith-curing power is limited by his honesty and knowledge. Quacks, who are probably ignorant and certainly dishonest, can use these powers of faith to an unlimited degree, and this explains why a quack will sometimes succeed for a while where rational medicine fails. But on the whole it is better for the world and society that truth, wisdom and knowledge be our guides. And so rational medicine repudiates faith cures as pernicious in the methods and eventually harmful in their influences.

Mrs. Helen Wilmans of Douglasville, Ga. recommends the following formula:

Seat yourself behind and out of sight of the patient; do not lay your hands on him at all. The only reason why you should avoid personal contact is because it has a tendency to externalize your thought. I see no objection to naming the disease he claims to have. It may be that you are afraid of the disease he claims to have; and if so, to name it will help you to banish your fear; it is like facing something you are afraid of; like unmasking a false bugaboo, that would have been a bugaboo always had you not unmasked it. Then name the disease in order to unname it. Perhaps it is cancer in its worst form. Then if you are not deeply in the understanding of the truth—it is probable that thoughts like these will swarm through your mind: "Why here; this man is in a fearful condition; part of his cheek is eaten away, and how can the flesh possibly grow again?"

Now such thoughts come to you because you are in the external beliefs with him. You must lose sight of the external and go deeper.

Say—"All is Good; all is Good; there is no evil in the universe." Keep saying this until a deep realization of its truth comes to you. When this realization does come you will have lost sight of all merely external beliefs. Then say—"If all is Good or God, then evil cannot exist. No power can exist that conflicts with the One Eternal Good. The Universe cannot be a universe and a diverse too. If it is a universe then it is altogether Good or God, and there is no room for evil in it. Then what is this disease the patient claims to have? first, let me see what the patient believes concerning himself, and secondly, what he really and truly is. I now address him *mentally*; I speak no word out loud to him except in answer to any question he may ask. I say to him—"I perceive your belief in disease and I know its origin. It did not originate in the One Absolute Truth we call God, because there is no evil in God, and if cancer were a reality it would be a very great evil indeed. That you do believe in evil as shown forth in the confession of your belief called cancer, is because you do not know your relation to God—do not know that you are of God, and that God exists in you—*the only power you have and are*. It is evident to me that you are living in beliefs of *your own or the race's making*; beliefs that are not in conformity with truth or God, but that *deny* truth or God. Now, while denials of truth or God may manifest themselves through the creative power of man's thought, yet these manifestations are only appearances of truth, and have no real basis of existence. They are the result of man's privilege as a growing individual to make mistakes in his upward climb toward the knowledge of absolute truth or God. This belief of yours is one of the many mistakes which the race is now making; it is a belief based on false premises, a belief based on the supposition that evil does exist, and does in a measure contest supremacy with God the One and Only. A belief grounded in a misconception of truth cannot stand when exposed to the full light of truth. Therefore when I tell you that there is not one particle of disease in the universe, and that God (Good) reigns eternal, and that you are a part of God, eternal as God, filled with divine power, ever flowing into and through you from the One Source, you may see that your belief in cancer is a delusion. You have no cancer. I boldly declare this, knowing that even my slight recognition of the truth will have a tendency to make the truth manifest; for the simple reason that God and one are a majority, and that no word of truth was ever spoken, no matter by whom or in what weakness that the Universe Life has not flowed into and made manifest. I therefore pronounce you a well man, resting in firm faith that the truth I have spoken so faintly and feebly will yet be proclaimed in lines of health that will entirely efface the false appearance in which you now believe."

Further Remarks on Rational Therapeutics.

By Thomas Temple, M. D.

Quinine.

As pronounced by Western physicians, or quineen as pronounced by Eastern ones. Quinine disulphas, a salt of the cinchona or Peruvian bark, is the one that is most commonly used in therapeutics and used in general since its discovery by the profession instead of the c rude bark which was formerly used. Quinine may be taken as the type of all the vegetable tonics, and is one of the purest description. It is an old friend of all the older practitioners of this State, when these immense prairies were first broken up, being a blessing to both practitioner and patient, when ague and chills were the rule, and exemption just enough to prove the rule.

The subject before us is not a trite one, but substantiated by stubborn clinical facts, of sufficient age to make them both tough and knotty. There is no doubt of the absorption of quinine into the circulation, as it has been found in the blood of patients to whom it had been administered both by Drs. Tiedemann and Gmelin, and in later days the effects of quinine have been produced in full force by its hypodermic use. Having the quinine now in the blood, the question is, does it act upon the blood or the nerves? Nerve medicines are quick in their action, and transient in their effect, and do not endure. Thus alcohol stimulates and intoxicates both healthy and sickly, and digitalis or cocaine would subdue a Hercules.

Some nerve medicines act without entering the circulation at large, mere contact with the nerves, as when they are applied to the skin, being sufficient for their action, as aconitina in solution or ointment. Again, nerve medicines are chiefly used in cases in which the nervous system is unusually excited or depressed, and are of no permanent efficacy in diseases depending on blood disorder. The action of tonics is not distinguished by the above signs. They are not quick and sudden in action. Their effect is not transitory. It is not evidenced in health as well as disease, they do not act upon the superficial nerves when applied to the skin. In each case the answer must be a negative, so that quinine, as well as all the vegetable bitters, are not neurotics proper, but blood medicines. It appears that their action on the muscular and nervous systems are secondary. The condition of debility, whatever its proximate cause, seems always traceable to a want in the blood which interferes with the functions of the nerves and other organs by impairing their nutrition. It follows fevers and accompanies chronic diseases, in both of which cases the blood has been exhausted by continuous waste and excretion, without the maintenance of a proper supply. In cancerous, scrofulous, scorbutic and dyspeptic habits the blood may be deteriorated by a fault in the assimilative process. When there is marked anæmia iron may be of most service, but when the blood is poor, without any deficiency of red coloring matter, then bitter tonics are needed to improve its condition. It seems that anæmia and debility are to be attributed generally to the state of the blood, and are to be cured by improving it. By so doing we improve the appetite, give tone to the muscular system and increase the nervous force.

Ague or intermittent fever is also a blood disease, and is caused by the inhalation of certain miasm arising from the ground, and in medical parlance is termed Koino Miasmata being supposed to be derived from decaying vegetable forms, which by Dr. Salisbury, in the "*American Journal of Medical Sciences*," for January, 1866, called them cryptogamic developments, and in said article shows very worthy industry, and research in this direction, of investigating the cause of intermittent and remittent fevers, which tend to prove that these affections are caused by certain species of palmellæ. Excuse me brethren if I am not well posted in any recent researches in this direction, I assure you it is not willingly, but of necessity as in the course of my reading I have not seen anything relating to the microbes of ague or remittent fever; nevertheless we all are or ought to be familiar with the phenomena of a paroxysm of ague, and likewise of the power that quinine exerts over this disease, in preventing further paroxysms, when the system having been properly prepared for its administration, by exciting the emunctories of the body, as the skin, kidneys and bowels. Quinine as a general rule ought not to be administered in high fever, when the pulse is hard, the tongue thickly coated or the stomach irritable. Prepare the system, then administer the quinine. Continued ague deteriorates the blood, and enlargement of the spleen which would not be the case, except through some faulty condition of the circulation. In periodic diseases, we find that impaired hepatic functions are the rule, and the absence of such the exception. In fact it may be said, that in all diseases in which quinine is used, there is a failure of the secretion of bile, and in all diseases in which there is a failure of the secretion of bile, quinine is serviceable. Its operation consists in the cure of general debility, however produced, and in the prevention of periodic disorders in the blood. Taurin is one of the proximate bodies found in the bile, and is said to be found also in quinine. Debility depends upon a want in the blood, and not in any active morbid process, and there are circumstances which render it likely that ague may be curable by the supply of a similar want. Quinine is also a useful medicine in typhoid fever, more especially when it can be made out in the diagnosis, that there is a decided tendency to periodicity: cut this periodicity off by quinine and you have a simple case of tophoid fever to treat. Idio miasma is the exhalation from human decomposition or excrements and is the supposed contagium of typhoid fever, but idio Koino miasma are exhalations from a mixture of both animal and vegetable decomposition, and hence may show signs or symptoms of both intermittent and typhoid fever.

In the stage of debility in the course of a case of uncomplicated typhoid fever, what tonic so good as quinine, and if anæmia is present quinine and iron, of course it must like all other remedies be mixed intimately with brains. Of course we find idiosyncrasies which cannot bear quinine, so with all the most useful of the articles of materia medica, but this does not argue in the least against their use, in proper cases adapted to them. Many physicians are afraid to give quinine, because of the characteristic ringing in the ears, or cinchonism as the doctors name it, sometimes nausea of the stomach, and some people are afraid of it, because they do not know for why, we have always found a weak solution of bromide of potassium given half an hour previous to taking the quinine, will almost always obviate these difficulties, and cause

toleration, both by the stomach and vascular system. Another axiom in medicine, "of two evils choose the least," now I wonder in a case of congestive chills, arising from any kind of miasm, who would be so foolish as to permit a recurrence of the same, from a prejudice against quinine, when it is our only sheet anchor, to place our patient in safety against another attack, which might land him in that bourne from whence no traveler returns. In the United States army during the four years war in this country, what single remedy was so much used as quinine, not only in malarial fevers, but in pneumonias, and all debilitating diseases, with the greatest benefit, and the least evil. Even our specialists of the eye and ear use quinine in combination with iron, phosphorus and strychnia, with the greatest advantage to their patients, both before and after severe operations upon the eye. And last winter and spring and this summer, tell me of any single remedy that did as much permanent good in "la grippe" as quinine. But probably quinine is too cheap since the duty of import was taken off, and fulfills the old saw or chestnut that "dear bought and far brought is good for ladies." All of which is duly submitted to the Military Tract Medical Association.

Neurasthenia, a Symptom and not a Disease.

By S. V. Clevenger, M. D.

An excellent translation by C. C. P. S. from *Le Monde Medical* appears in the July Western Medical Reporter, of an article entitled "Neurasthenia or Beard's Disease," and it is about time physicians began to analyze this "new" disorder for themselves. A little careful study of cases will enable its elimination from the over-burdened list of real complaints, and its proper assignment alongside other symptoms such as dropsy, palpitations, dyspepsia, headache, or "debility," which last is the name that has been forsaken in favor of "neurasthenia."

During the war Abraham Lincoln and our favorite army officers were accredited with having originated all the old stock jokes and wise sayings that antedate Joe Miller and Aristotle, and among them was the statement that "General Debility killed more soldiers than the rebels did."

Every letting down of strength, from whatsoever cause, such as dysentery, diarrhœa, bad or insufficient food, nostalgia, malingering, hæmorrhage, etc., was hastily diagnosed as "general debility," for some record must be made on the hospital books as to the ailment.

In twenty-five years' experience in hospitals and private practice I have encountered debility and neurasthenia interchangably charged as responsible for the following conditions:

Old age, dementia, hypochondria, hepatic cirrhosis, Bright's disease, chlorosis, pregnancy, alcoholism, menorrhagia, metrorrhagia, hæmorrhoids, phthisis, aneurisms, aortic stenosis, toxæmias innumerable, hæmorrhages, several kinds of spinal derangements, catarrhs, cancers, rachitis, pleuritic effusion, syphilitic dyscrasia, cerebral atheroma, cerebral anæmias, leucocytæmia, cerebral and spinal traumas and tumors, pareses, gastritis, imbecility, melancholia, myxœdæma, sunstroke, and the list could be almost indefinitely extended.

We may well agree with the statement in the article referred to that "there are few diseases manifested by such a multitude of symptoms as this."

Everything and anything may cause it, and everything and anything may answer for symptoms; *provided* debility is present.

Looking over the ætiology we have all sorts of emotional, intellectual and physical causes, "poisoning by tobacco, alcohol, wine, coffee and so on, *ad infinitum*. Then turning to the symptoms, anything that may occur to the special or general senses, to the brain, blood vessels, spinal cord, stomach, intestines, genitals and finally the sequelæ include everything else that might have been accidently omitted.

"Numerous cures have been obtained by Dr. Vigaroux under Dr. Charcot, at the Hospital of the Salpitriere by the use of static electricity," the article concludes.

What a French doctor can't do with static electricity is unknown. It is the agent above all others that will impress the imagination with its luridity, its spits, fizzes, snaps, sizzles and forked lightnings. Galvanic electricity is decidedly more useful in real disorders, but there is little of the theatrical about it and hence hysterical and hypochondriacal neurasthenia is best treated with the more flashy affair. Static electricity stands next to Christian Science as a useful fake at times. Great is neurasthenia for only the Lord knows what it is and isn't.

Proceedings of Societies.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Scientific Meeting, June 16th, 1891.

T. D. Davis, M. D., President, in the Chair.

VOMITING OF PREGNANCY; ITS ETIOLOGY AND TREATMENT.

Read before the Allegheny County Medical Society, June 16, 1891.

By F. Blume, M. D., Allegheny Pa.

Pregnancy, as a rule, is complicated with a variety of disorders, which, though in many instances causing much discomfort, are termed physiological as long as they are not associated with serious disturbances of the organism. Derangements of the gastro-intestinal canal, nausea and vomiting, to the consideration of which I invite your attention to-night, are such a regular occurrence during the early period of pregnancy, that experienced women consider them as positive signs of conception.

The so-called morning-sickness—nausea and vomiting early in the morning, or even after meals during the first few months of gestation—have, in the large majority of cases, no effect either upon the course of pregnancy or upon the health of women. Although the ordinary morning-sickness sometimes persists during the whole period of pregnancy, it remains endurable, causing the patient rather annoyance than injury. There are intermissions, either spontaneously or the consequence of some treatment, the digestive functions remain more or less normal, and the vitality of the patient is not essentially impaired. In some, fortunately very rare instances, however, nausea and vomiting become incessant and uncontrolla-

ble; the stomach rejects everything, the patient grows weaker till the most extreme degree of exhaustion is reached, and death from starvation threatens.

The onset of this grave form of the affection is gradual, and does not differ in character from the usual morning-sickness. But soon the nausea becomes more intense, the vomiting more frequent. The ejected matter consists of food, mucus and bile. The appetite is more or less impaired or perverted; the thirst is excessive; constipation is more frequent than diarrhœa; the urine is scanty, concentrated and contains albumen and casts. The pulse grows small and rapid, the temperature rises and continued fever develops.

With the progress of the disease the condition of the patient becomes more and more alarming. The nausea is almost constant, adding greatly to the discomfort of the woman. The efforts at vomiting are accompanied by violent retching and pain, not the smallest amount of food or drink is retained by the rebellious stomach, the smell, even the thought of nourishment, or the slightest movement of the patient, induces an attack. The vomited matter is finally mixed with blood. The thirst is tormenting, the throat and mouth are dry, the tongue brownish, the breath fetid, the abdomen tympanitic. The consequences of this continued suffering soon become very pronounced by the marked alteration of the features, the extreme emaciation and the profound depression of the patient. Shortly before life ends vomiting ceases and coma supervenes.

Cases of persistent vomiting, which terminate fatally, are certainly very rare. Even after the application of various methods of treatment has failed to influence the course of the disease, and while the induction of abortion was earnestly considered, the patients have recovered spontaneously and have gone to full term, as I have seen in the only instance of this grave disorder which has come under my observation.

There is considerable diversity of opinion as to the causes which may incite hyperemesis, and, in spite of numerous theories and hypotheses, the etiology of this disorder is by no means clear. It is almost universally accepted to be a reflex neurosis originating in the uterus and dependent either upon pregnancy alone or upon coexistent pathological conditions.

Pregnancy itself, the growing ovum, which acts as an irritant by the simple mechanical distension of the uterine cavity and its peritoneal covering, is in the first place to be mentioned as the most potent etiological factor.

Cases of multiple pregnancy and hydramnion, which present a disproportion between the passive distension and the active growth of the uterus, and which frequently are complicated with hyperemesis, confirm this view. Moreover, the induction of artificial abortion, our last resource in desperate cases, which almost immediately relieves the patient when done in time, is founded upon this theory of passive uterine distension, and strongly supports it.

Spontaneous death of the fœtus, followed by immediate or remote abortion, is another remarkable fact in favor of this view.

A patient of mine, the mother of two children, was suffering from double laceration of the cervix, erosion and endometritis. She refused surgical treatment, and was relieved by repeated irrigations of the uterus with carbolized water, and by the application of tincture of iodine. She soon afterward conceived, and her pregnancy was complicated with the ordinary morning sickness from the second month to the beginning of the sixth, when the vomiting suddenly ceased. Two weeks thereafter she told me that she did no longer feel the movements of the fœtus, that vomiting had ceased, and that she therefore believed the child was dead. Though I could not detect the fetal heart sounds, I gave my opinion with reserve. Three and a half months later I delivered her of a dead fœtus about five months old.

This case affords the most striking evidence of the discontinuance of reflex symptoms after the removal of the inciting cause. We have here pregnancy complicated with pathological conditions of the uterus, as double laceration of the cervix, ectropium and probably a but partially cured endometritis, conditions which existed prior to conception and continued after the death of the fœtus. But in spite of the persistence of these pathological conditions of the uterus, and of the retention of the dead fœtus for almost four months, the vomiting disappeared with the death of the fœtus, that is, with the cessation of the mechanical distension of the uterine cavity.

The influence of primary gravidity is demonstrated by the fact that hyperemesis in its grave forms is essentially an affection of primiparous women, and it is to be referred to the greater resistance of the virginal uterus.

Numerous other causes are given as etiological factors by different observers, among them: pathological conditions of the cervix, chronic metritis and endometritis, displacements of the uterus, inflammations of the pelvic peritoneum and connective tissue, ovarian neurosis, neurotic predisposition, hysteria, and lastly, diseases of the gastro-intestinal canal, especially gastric ulcer, chronic gastritis and constipation.

Morbid changes of the uterus are frequently the cause of reflex neuroses in nonpregnant women. The dependence of gastric disturbances upon the irritability of the uterine nerve-fibers, due to flexion and version of the uterus, to an eroded and congested cervix, to metritis and endometritis, has, in many instances, evidently been proven. Relief has been obtained by the removal of the exciting cause, by the treatment of the uterine diseases after gastric medication had been tried again and again and had failed entirely.

Bearing in mind the physiological changes of the uterus during the pregnant state, its increased functional activity, the influence exerted by gestation upon the nervous system, and the relation between the neuroses and the disorders of the reproductive organs, so often conclusively proven in non-gravid women, we are compelled to acknowledge the various pathological conditions of the uterus as prominent etiological factors deserving our earnest attention. Cases are on record where the application of caustics to the eroded cervix, scarification of the congested vaginal portion, dilatation of the cervical canal, correction of a flexion, have proven successful in stopping the vomiting, and thus demonstrated the connection between the uterine lesion and the reflex nerve action. In other instances, however, the result of the gynecological treatment has not been so satisfactory, either transitory or no relief has been obtained, and, as a consequence, the influence of the uterine disorders

upon the gastric phenomena, their importance as the causative diseases has been questioned.

Undoubtedly it will be often found difficult to decide whether the symptoms result from physiological or pathological causes; whether they are due to distension of the uterus or to morbid changes in the sexual organs. All methods of treatment, artificial aborption excepted, may fail to relieve the patient, and she finally may get well by absolute rest and complete abstinence to the surprise of her medical attendant.

Such cases are certainly rare, while, on the other hand, there is abundant clinical evidence of the effect of local treatment. Numerous women have been benefited by the treatment of the uterine lesion; the reflex symptoms have been mitigated or cured by the improvement of the causative disease, and the connection between both has thereby been confirmed.

Attention has been drawn to the importance of endometritis as an etiological factor by F. Veit,* who reported three cases of uncontrollable vomiting, where he was compelled to interrupt pregnancy, and where he found inflammatory processes in the decidua, serotina and vera. Veit believes that by his researches the dependence of hyperemesis upon endometritis is positively proven. As a rule, the endometritis exists prior to gestation, the symptoms are but insignificant, became palpable, however, with the beginning of pregnancy, which frequently is interrupted by this complication. In many instances the endometritis decidua will be found to be the cause of the uncontrollable vomiting; the connection through sympathetic paths must be the same as between gastric disorders and endometritis in non-gravid women. The evidence of an anatomical base, he continues, renders a most careful examination of the uterus imperative, and, if the diagnosis of endometritis, which is very difficult before the removal of the ovum, can be made out, it may be of determining influence as regards the advisability of inducing abortion.

Quite recently E. H. Grandin,† discussing this subject in the New York Obstetrical Society, suggested ovarian neurosis, pressure on unusually hyperesthetic ovaries as a cause of hyperemesis. This view, he says, would be suggested by Dr. Coe's case, which showed that the physiological vomiting of pregnancy could be palliated by teaching the patient to assume the genu-pectoral position before rising, and as often during the day as necessary. He would explain the vomiting of pregnancy, then, by the fact that during the early months the uterus lay low in the pelvis and pressed on the ovaries; at the third month, when the vomiting usually ceased, the uterus rose above the pelvic brim. In cases of pernicious vomiting it was possible the ovaries were either enlarged through disease or had become impacted between the pelvic brim and the lower uterine segment.

Grandin's theory, though it may be applicable to a given case, will probably not be favorably accepted. To-day the view is predominant that reflex neuroses may originate in the uterus, and not in the ovary. The removal of normal ovaries for the relief of reflex symptoms is at present restricted to exceptional cases, and it is believed that if a satisfactory result is obtained by the operation, this is due to the changes in the condition of the uterus, to the artificial induction of the menopause, resulting from oophorectomy. Clinical evidence supports this view.

Grandin's explanation, however, may prove valuable in so for as to induce us to carefully examine the ovaries in cases of hyperemesis. Prolapsed ovaries are by no means a rare affection, but it remains to be demonstrated whether pressure exerted upon them by the enlarged uterus stands in causal relation to gastric disturbances.

Nervous dispositon and hysteria, so frequently met with among women of the better classes, add greatly to the discomfort of pregnancy, and, though there are certainly many exceptions, must be considered as prominent predisposing factors of the graver forms of vomiting.

The importance of diseases of the gastro-intestinal canal, especially of gastric ulcers, is emphasized by various authors. According to Horwitz* "hyperemesis develops in some cases complicated with more or or less pathological changes of the stomach and of the intestines. The greater the disturbance in the alimentary canal the easier the ordinary vomiting takes on the character of the uncontrollable form."

The diagnosis of vomiting of pregnancy is by no means as easy as one might think at first sight. While the dependence of this disorder upon the pregnant state may often be determined without much difficulty, cases—especially of the graver forms—may present themselves where this will be found impossible, and where the diagnosis, therefore, must remain doubtful. Faggard† directs our attention to the fact "that so few cases of pernicious vomiting are recorded in German medical literature that the existence of this affection is even questioned." Carl Braun, in a fabulous experience of over one hundred and fifty thousand obstetrical cases, has never observed a single fatal termination. On the other hand, Robert Barnes has himself seen 9 fatal cases. McClintock collected close on 50 cases, and O. W. Doe 48 cases with 18 deaths occurring within the last fifteen years, and registered in American and English journals. Gueniot records 118 cases with 46 deaths.

It is not at all improbable, Faggard continues, that the difference of opinion as to the frequency of this disorder between the Germans on the one hand, and the American, French and English observers on the other depends, in a large measure, upon the difference in diagnostic criteria insisted upon by the respective schools. In the majority of the fatal cases of alleged hyperemesis due to pregnancy reported by American, French and English observers, there is a notable absence of reliable records of *post-mortem* examinations. In the few cases collected by the Germans, on the other hand, the diagnosis during life has almost invariably been confirmed or negatived by exact investigation of the dead body. Horocks pertinently remarks: "Where there has been no *post-mortem* examination in a fatal case of vomiting, I do not think one is entitled to say that pregnancy caused the fatal vomiting. It may have been the cause, and the only cause, or it may have been an aggravation of some other cause, or it may have had nothing to do with it. Skepticism as to the alleged frequency of this disorder in the present state of our knowledge is accordingly eminently in order."

Berliner Clinische Wochenschrift, 1887, p. 643.
†*American Journal of Obstetrics*, 1890, p. 1382.

Praktischer Arzt, 1882, p. 261.
† American System of Obstetrics, Vol. I., p. 411, 415.

According to Gueniot* three distinct factors are to be taken into consideration in making the diagnosis of vomiting of pregnancy: First, the diagnosis of pregnancy; second, the diagnosis of the adjuvant or determining cause of the vomiting; third, the differential diagnosis between obstinate vomiting due to pregnancy and that due to other causes independent of gestation.

It is both interesting and instructive to learn that errors in diagnosis have been made even by eminent clinicians. Thus Faggard † tells us that Trousseau once diagnosticated uncontrollable vomiting and induced abortion in a case in which the autopsy revealed cancer of the stomach. Beau erred in diagnosis in a case in which the *post-mortem* examination showed tubercular meningitis as the probable cause of the vomiting, and Cazeaux narrates the history of a fatal case of alleged hyperemesis of pregnancy, where the autopsy disclosed tubercular peritonitis and the absence of pregnancy.

But a mistake in diagnosis is possible even in the other direction; that is, pregnancy may be denied by the patient or not be expected by the physician, and thus be overlooked, as shown in a case recently reported by A. H. Buckmaster.‡ The patient, a governess in a respectable family, was supposed to be suffering from vomiting due to ulcer of the stomach, and was under treatment two months when she died. In making the autopsy a five-months' fœtus was found, but no ulcer whatever, nothing to account for death except the uncontrollable vomiting of pregnancy.

These cases need no comment. I have cited them to demonstrate both the difficulty and the importance of an accurate diagnosis.

It is generally stated that the prognosis of hyperemesis is bad, but this, apparently, is by no means correct. As Faggard justly remarks, "it is doubtful whether an authentic fatal case of this kind is recorded. Such cases have never been seen by observers of the largest experience."

Even the graver forms of this disease yield, as a rule, to rational treatment, unless they are complicated by serious pathological conditions which of themselves render recovery impossible. Pregnancy may aggravate such cases and perhaps hasten death, but it must be admitted that there exists no causative relation between gestation and the lethal issue.

A great variety of remedies—still increasing in number every year—have been recommended by different writers. These remedies have proven satisfactory in some cases, but failed entirely in others. This uncertainty of the various methods of treatment, the often but little annoyance caused by the milder forms of vomiting, and the experience that in many instances spontaneous cures occur, have led to the view that interference is not required unless the case presents a more serious aspect. Such advice given in text-books is, at first sight, surprising. Even in mild cases of gastric trouble a careful examination is indicated, and should be insisted upon by the medical attendant to determine the cause of the disorder, its dependence upon physiological or pathological conditions. Are the generative organs found to be normal? Are there no indications of diseases of other vital organs, especially of the stomach? Is the effect of the vomiting upon the general health but insignificant? It may then be decided whether it be a wise plan to irritate the stomach by various drugs, which, as known from experience, are of so limited value in this reflex affection, or to desist from treatment. It is in this sense, I take it, that such advice has been given, and it is under these circumstances that it deserves recommendation. Nevertheless, such statements in text-books are misleading, fortunately, but to the superficial reader.

While mild cases of vomiting do well without treatment, diet and regulation of the bowels are usually sufficient to render the gastric disturbances tolerable, but the persistent vomiting demands our earnest attention.

Hyperemesis, a reflex neurosis, is due either to physiological changes in the uterus, distension by the growing ovum, or to pathological conditions complicating pregnancy. If we exclude coexistent diseases of the stomach, which will be considered later on, it must seem plausible that the treatment should be directed against the causes and not against the symptoms of the gastric disorder; that is, against the uterus, and not against the stomach. The stomach is not the diseased organ. Nausea and vomiting of pregnancy are only the symptoms of some functional disturbance of the nervous system, originating in the uterus, like the nausea and vomiting of seasickness, an analogous disease, dependent upon the motion of the ship. For this reason gastric medication must fail to favorably influence hyperemesis; for this reason none of the innumerable remedies recommended are found to be reliable—some of them are worse than useless.

There are three classes of cases, however, which sometimes may be relieved by the administration of drugs, viz.: 1st. Women who, prior to gestation, have been afflicted with diseases of the stomach, as chronic gastritis and gastric ulcer; 2d. Women of an unusual nervous irritability; and 3d. Hysterical women.

In cases of the first category subnitrate of bismuth, bicarbonate of sodium, Carlsbad water, oxalate of cerium, the tincture of nux vomica, etc., may be tried and may sometimes be found of decided value, while the nervines and sedatives may give relief to nervous and hysterical women. Opium and its preparations, the bromides and chloral, either administered by the mouth, by the rectum, or hypodermically, as the circumstances require, are the medicinal agents which have the best reputation, and, which in these cases, sometimes successfully depress the reflex irritability, and thus alleviate the symptoms. Blisters, the application of chloroform, ether, and of the faradic current to the epigastrium, of the ice-bag to the dorso-lumbar region have been tried and have afforded relief in some instances.

The resort to local treatment is indicated in all those cases in which a morbid condition of the uterus has been made out. Retroflexion and retroversion are to be corrected, and, if necessary, the uterus is to be retained in position by a suitable pessary. A congested vaginal portion may be relieved by scarifications, while the application of carbolic acid, or of a ten per cent solution of nitrate of silver to the eroded cervix will often prove successful in mitigating the distressing symptoms. Faggard* states that in

*Faggard, American System of Obstetrics, Vol. I., p. 416.
† l. c.
‡ *American Journal of Obstetrics*, 1890, p. 1381.

* l. c.

Vienna a 10 per cent solution of nitrate of silver is employed in all cases of severe vomiting, irrespective of the condition of the viginal portion. "The weight of testimony in favor of this simple procedure, collected from innumerable sources, is so great as to make its employment absolutely obligatory before resorting to more radical methods."

Dilatation of the cervix—Copeman's method—has proven successful according to some writers, while others report negative results. In the only case of severe vomiting which I have observed it had a most remarkable effect. The nausea disappeared instantly, but only for a few hours. The method was again applied, but no result was obtained the second time.

Horwitz† recommends that in the severer cases of vomiting the patient should be placed at rest in bed in the horizontal position, that the room be darkened, and that, if the stomach rejects everything, rectal alimentation should be resorted to. Crushed ice to quench the thirst is allowable. I can fully endorse this plan.

When these various methods have failed, when the vomiting actually is uncontrollable and seriously endangers the patient's life, the induction of abortion or premature labor is indicated, and will, if done in time, to a certainty save the woman.

DISCUSSION.

Dr. Le Moyne: I agree with the doctor that in a great many cases vomiting is largely due to abnormal conditions of the parts. I had the same experience with obstinate vomiting in this condition, and found it often was relieved by the correction of some erosion or displacement, although I do not believe that that always caused the condition. The doctor has very wisely laid a great deal of stress upon the matter of careful examination of the parts where these conditions exist, with the view of ascertaining and removing any such abnormal conditions.

Dr. Lange: An excellent paper the doctor has given us; it deserves our thanks. It is very comprehensive and thorough, and there is nothing in it to which any one can raise any objection, except perhaps this: the rectification of displacements of the uterus during pregnancy by the use of pessaries. That, in my experience, is impossible. In an impregnated uterus, and perhaps in a uterus which is not impregnated, I think that it is beginning to be thoroughly understood that the pessary is a means of absolutely no value, sometimes of great discomfort, and occasionly of some danger. The only pessary which may perhaps be sometimes of service is the ordinary balloon pessary, a rubber globe which is ballooned up by inflation with air or water. This—in my experience—prevents the descent of the uterus in some cases. The stem pessary of Dr. Kinloch may also be an exception to the rule, that pessaries are useless for uterine displacement; this can be used of course only in the unimpregnated uterus, and may deserve consideration in flections. Among the remedies which the doctor has mentioned are the most valuable, but I failed to hear calomel. Calomel has been, in my experience, a most valuable remedy. In proof of this, I had a lady under my care who had twice suffered abortion at four months, at the hands of most eminent gentlemen in the profession, because of pernicious vomiting, and their conclusion was that she would die.

† l. c.

At her third pregnancy she and her husband again concluded that she would die, and she certainly looked like it. Her adipose tissue had disappeared, her muscular system had atrophied, her belly was distended and tender, she was blanched, her pulse was small and rapid, she had an elevated temperature, and her tongue was red and dry. I gave her calomel, one-eighth grain every three hours. In 48 hours she was able to retain *some* food, in two weeks she left her bed, still sick, still vomiting, but able, despite her vomiting, to take a sufficient amount of food to maintain life and improve her condition. That is one instance where calomel exerted a very marked good effect, and this was not due to any organic disease of the stomach; sufficient proof of this is the fact that before her pregnancy she was always well, and the same was true before her previous pregnances. She is the wife of a druggist in this city. I give calomel frequently in the vomiting of pregnancy, but in the case related it strikingly exhibited its power. The doctor mentioned a remedy with which I have no experience in the vomiting of pregnancy, but of which I have heard much good. I have always understood that the introduction of that method belonged to a Pittsburgher, namely, Dr. M. O. Jones, of Wylie avenue, who informed Dr. Marion Sims of it; the latter teaching it in Paris in 1870. I have always understood that dilatation of the cervix and the separation of the membranes a little way up, which is said to be a very excellent remedy for the ordinary sickness of pregnancy, is the method of Dr. Jones.

Dr. Dagette: The doctor speaks of increased temperature being one of the symptoms of pernicious vomiting. Is that one of the signs which arise before death?

Dr. Blume: In my case, after about two weeks had passed fever commenced, and after another week had passed, the woman still in bed, her fever went up to 103 and remained at that height for several weeks, and this case recovered without any medicine whatever, having nothing but absolute rest. She was in bed about six weeks.

Dr. Batten: I have had two cases of severe vomiting of pregnancy. One was in the person of an unmarried woman. At first I could not imagine (she was supposed to be a virgin) what the trouble could be. She was emaciated and her eyes were sunken; after two or three days my suspicion was aroused. There was no fever. The case went on for two weeks under my treatment with all the remedies that I knew of, excepting local applications, and from the fact that the young woman made the request that I keep her mother in darkness as to the cause of the trouble, I was prevented from making any local applications. But after exhausting everything, I returned to blackberry brandy and stopped all medicine; after giving her the second dose, the vomiting ceased and she recovered after taking the remedy for some three weeks. Another case I had in 1882. A woman had seven children and never had any vomiting whatever; in this case the vomiting appeared at the end of the first month and continued right along to the end of the fifth month, and all remedies seemed to have no control whatever of the trouble. However, at the end of the fifth month, after I had given up the treatment, she was not so prostrated as the other case. It was a twin pregnancy, and when that woman was delivered one child was fully developed and another

was dead, having died evidently at about the fifth month, about the time the sickness left her. The dead fœtus was in the neighborhood of five or six inches long. The woman ran on to full time.

Dr. Connell: One point the doctor alluded to, the use of nitrate of silver. My attention was first called to the use of this remedy by Dr. Jones, whose name has been mentioned, and I think to him belongs the credit of the introduction of nitrate of silver treatment. In the *Journal of the American Medical Association*, of two years ago, there was a paper written by a gynecologist or obstetrician at Washington, whose name I cannot now recall, and in reply to that, Dr. Jones gave his experience in the use of nitrate of silver, and alluded to having spoken to Dr. Sims about it. Dr. Jones used that many years ago, and it is only a few years since the attention of the profession was called to it. I have used it and had better results with the application of the nitrate of silver than with any other remedy.

Dr. Huselton: I want to say a word in defense of the pessary. I think that we have displacements of the uterus in the early stages of pregnancy. I also believe it is possible to rectify them and maintain them in proper position by the use of Thomas' retroversion pessary. I have certainly replaced retroverted uteri and maintained them in position with this pessary. With regard to treatment, as has been properly stated, I do not know of any one remedy that will relieve all cases. I remember one very aggravated case I had a number of years ago, in which I tried everything that I could think of, which I afterwards succeeded in relieving entirely with a large dose of chloride of potassium.

Dr. Green: I have no criticism to offer on the paper. I wish to relate a case of vomiting during pregnancy which came under my observation on the sixth of this month. The lady was three months pregnant. She had been treated by two or three physicians previous to her application to me. I do not know what remedies she had taken, but no relief had been afforded by any of them. I found her very much prostrated, and for five or six weeks she had had difficulty in retaining food sufficient to afford nourment; she had not rejected all the food and was still able to go about. An examination of the uterus discovered it to be displaced, retroflexed and apparently bound down with adhesions, and abortion was about to take place. There was evident hemorrhage, which had begun some time the previous night. She miscarried on the second day after I saw her. Again, I wish to say a word in regard to the use of the pessary. While I have no doubt that the pessary may in certain cases do some damage, I have seen what I supposed was benefit, what I supposed was very great benefit, in the use of the soft pessary; especially in cases coming under the class where displacement can be assigned as the cause, I have seen permanent relief. I wish to say a word about the damage sometimes done by pessaries. About six weeks ago I delivered a lady at term. On making examination, I found a common ring pessary, hard rubber. I said: "How long have you worn this?" She replied: "About five years." Six years previously she had given birth to a child, and immediately after that this pessary had been placed in the vagina and remained there ever since. I removed the pessary, and saw that it had done no harm. This, I presume, does not very often occur. It shows that the pessary does not always do very great damage.

Dr. Werder: I have no personal experience in this matter. I have had a large number of pregnant women under my observation, but have never seen a case of serious vomiting of pregnancy. There is no doubt that vomiting of pregnancy is a reflex neurosis —of course that is not saying very much—but I think in a large number of cases it is a form of hysteria. A number of cases have been reported which were treated as hysteria and got well under that treatment; before that, other methods of treatment were employed without any benefit whatever. I think there is no doubt that a large number of cases are hysterical in their character. In regard to pessaries, I have no doubt that pessaries are used very much, and very many women would be far better without them, but there are exceptions to that. I think a good many women would not feel comfortable without the pessary. If the uterus is properly replaced and in normal position and a pessary is introduced, where there is no inflammatory condition of the pelvis, in many cases it does a great deal of good. Many of these women are very comfortable wearing a pessary for months, and women come to me with pessaries where there is no flexion at all, where there is no displacement of the womb, and sometimes there is a displacement, but it has not been reduced at all, the uterus is retroflexed just the same as it was before the pessary was introduced. In pregnancy I have had probably two or three cases of this class, and am certain that these women suffered before the uterus was put in position and before the pessary was introduced, and the benefit they derived from the pessary was also very great.

Dr. Davis: Dr. Blume certainly covers the ground in every particular very thoroughly, and there is one point that he dwelt on, and that is, as he said very aptly, you would think that the diagnosis of pregnancy was a very easy thing, and yet I believe this is an important point of the question for discussion tonight. I believe that on that hangs the treatment, and that is the reason such various treatments are recommended, and why in some cases one treatment acts very favorably and another treatment is of no benefit. I think it stands to reason that if pregnancy is the cause of this vomiting, calomel would have very little effect. I think it stands to reason that if there is no (or very little) trouble of the uterus, but if there is a disease of the stomach, calomel would be very beneficial. And, therefore, while in one case I would expect benefit from it, in the other it would be *nil*. On one occasion I was called to see two ladies, neighbors, both suffering with morning sickness of no aggravated form, but enough to give them great discomfort. To the one I prescribed to the best of my judgment what was wanted, bromide of potash. In the other I prescribed hypophosphites in an acid solution. I remember distinctly they were given in quite large bottles; they each used about half of the bottles, which were given within a day or two of the same time, and were none the better, but rather grew worse. Talking, as neighbors will do, over the back fence, they compared notes and traded bottles, and in a short time both were completely relieved. The explanation is simply this, that the acid and the hypophosphites in the state of the one stomach was just what was needed, while the nervine and the alkali was just what

the other needed. I believe that as far as we possibly can we ought to ascertain what is producing this particular sickness in this particular woman, and not take it for granted that all morning sicknesses are from identically the same cause. In my experience I have seen a great many severe cases. Pregnancy acts differently in different persons, and the thing that would remedy one case would be useless in another. I have seen a good many that I considered very severe cases, but it has been my lot to see one that was of unusual severity, at least the result shows it to have been so.

A lady whose medical history I know comparatively little came under my observation for four visits. She was several months gone in pregnancy and was suffering with profound morning sickness. A particular characteristic of it, as I noticed in these four visits, which extended over about ten days, was ptyalism. In fact in my presence she was so overcome that she had to vomit. As I was seeing the case in connection with another physician, a friend and relative, who had been there about an hour before my last visit, I did not push the investigation at that time as I had no particular alarm. That was on Thursday evening. It had been the case for the husband to drop in to tell me how she was feeling, and to telephone if she was feeling unusually bad. Thursday evening I saw her last. Sabbath morning the physician dropped in and told me he had called and found her in a very critical condition. It seems that on Friday morning a lady physician had been called in, and on Friday and Saturday had seen her in this condition of increasing irritation of the stomach, and vomiting of some cloudy fluid, and on Sabbath morning when her friend, the physician, saw her, she was in a critical condition, and in spite of dilatation and everything else that could be accomplished on Sabbath night, she died on Monday. I felt impressed at the time and more impressed upon hearing Dr. Blume's paper to-night, that a *post-mortem* examination should have been held on the case.

Dr. KOENIG: It seems to me that in looking for a specific cause of vomiting in pregnancy, we overlook the fact that the nervous system is very powerfully affected by the pregnancy itself. Vomiting in pregnancy is so common that it cannot be due to a gastric lesion; it must depend on an irritation of a nerve ganglion that transmits it to the brain. It has been said that it is impossible to explain why the peculiar motion of a ship should produce vomiting; I have never heard it explained; I do not suppose we can explain it; nor can we explain satisfactorily how the vomiting of pregnancy is produced. It would appear to me that the action of all remedies that are of any value can be accounted for in two ways, one a counter-irritation, which would explain the action of pessaries; explain the action of nitrate of silver when applied to the os; and would explain the action of dilatation.

By these an iritation is produced which diverts the attention of nature from the disturbing causes which produce vomiting. The artificial irritation at the os distracts the attention of nature from the other point of irritation, and the vomiting ceases. The other action to which I refer is an anæsthetic action applied to the terminal nerve filaments of the stomach. I have recently seen a remedy possessing this action recommended, which Dr. Blume did not refer to in his paper, namely, menthol, in two grain doses. Menthol is a powerful anæsthetic, and by deadening the sensibility of the nerves of the stomach, I can very readily conceive how the vomiting might be arrested. We all know the tendency of disease is toward recovery, and if vomiting in pregnancy is a disease, it is especially true in this case. That fact accounts for the numerous remedies that are said to be corrective. That fact might account for the results that followed the exchange of remedies in the case alluded to by the President. A large majority of cases recover without medication.

Dr. Duff: I would make the distinction in discussing this subject between simple vomiting during the ordinary morning sickness of pregnancy, the more persistent and aggravated vomiting, and the pernicious vomiting. There is a conservatism of nature in the first class; indeed, some observers declare this to be so, inasmuch as women thus affected go through their pregnancy as a rule better than do those who are not. The pernicious vomiting due entirely to pregnancy without complications is, I think, a rarity. The failure up to this time of observers to agree upon any common cause of vomiting during pregnancy is *prima facie* evidence of varying causes. Our treatment, therefore, should depend upon a rational consideration of each case presented to us.

In the cases of Dr. Davis, I do not think that when the exchange of medicine was made the patients were about to get well. I think the exchange was a happy one, inasmuch as the then treatment was in accordance with the acid or alkaline condition of the secretions. I did not notice that the doctor said anything about electric treatment. I think it is sometimes efficacious. Another mode of treatment is the application of cocaine to the cervix uteri. Injecting it into the tissues of the cervix, I think gives the best results, although painting with a 15 per cent solution may answer as well.

Dr. Blume: It has been said, that pessaries should not be employed to retain a gravid uterus which has been retroflected. Vomiting, as a rule, occurs during the first few months of pregnancy; the replaced uterus will at so early a period of gestation often need a support or become again retroflected. We have two means to retain the uterus in its normal position: 1st. Tampons; 2d. Pessaries. Tampons must frequently be changed, are therefore inconvenient and even injurious, as they may incite contractions and thus produce abortion. A suitable pessary does no harm under these circumstances, as I have seen in many instances. Stem-pessaries cannot be considered here. In my opinion they should never be used. They are certainly contraindicated during pregnancy.

Calomel has not been mentioned by me because it failed entirely to influence the gastric disturbances in my cases. It acts as a simple purgative, and is indicated or may be tried in cases complicated with costiveness.

Gastric medication is applicable only in the milder forms of vomiting. Cases of pernicious vomiting, where everything is rejected by the stomach, cannot be relieved by drugs, be they given by the mouth, by the rectum, or hypodermically. It may sometimes be possible to stop the vomiting for a few hours, but, as a consequence, the nausea becomes so intense that the patient feels relieved as soon as the vomiting commences again.

One gentleman said that dilatation of the cervical

canal has been practiced many years ago. This method, first recommended by Copeman, justly bears his name: Copeman's method. Dilatation of the cervix, if carefully effected, does not interrupt pregnancy. But if the internal os is dilated, or, as one gentleman recommended to-night, if the membranes are detached around the internal os, abortion will probably be the consequence.

The view, expressed by one gentleman, that patients with the ordinary vomiting do better at term than those without this disorder, is at least surprising and by no means supported by experience.

In conclusion I wish to touch a point which I have not discussed in my paper, viz: When has the vomiting become uncontrollable, and when is the induction of abortion indicated? This question is a very important one, for if we wait too long the woman will in all probability lose her life. Uncontrollable vomiting is apparently very rare in our vicinity. The case reported by Dr. Davis is the only one I heard of in this city, and I regret that no autopsy has been made. In New York where this subject has been discussed in the obstetrical society last fall, pernicious vomiting must be a rather frequent complication, as almost every speaker reported cases where artificial abortion had to be induced to save the patient. Several women died, the evacuation of the uterine contents having been too long delayed. All the speakers agreed that abortion should be induced before the condition of the patient had become critical.

I believe that no precise rules can be given as to when to empty the uterus, and that every case must be treated according to its peculiarities. When the various methods of treatment have been tried in vain, when the patient becomes more and more emaciated, it seems hazardous to wait for the most extreme degree of exhaustion. A consultation should be held and the induction of abortion, the last chance of saving the woman's life, should not be postponed too long.

Dr. LeMoyne: In December, 1890, I was requested to see a woman in consultation who was supposed to be six and a half months pregnant. She had been delivered of two children at full term previously, and had one miscarriage at about six months. For about two weeks she had noticed some swelling of the lower extremities, and a specimen of her urine which was procured the evening previous to my attendance was found to be so largely ccmposed of albumen as almost to solidify by boiling. She had taken her evening meal with her family between six and seven o'clock, but while at the table experienced considerable pain in the abdominal region, and was compelled to retire before finishing. She was assisted to bed and medical attention procured. Between that time and six o'clock the following morning she had three very decided convulsions. At six o'clock a. m. her expression was rather dull, but she responded intelligently to questions, and recognized persons who addressed her. The mouth of the uterus was sufficiently patulous to admit the point of a finger, which readily detected the body of the fœtus. No instrumental apparatus being at hand for the dilatation of the neck of the uterus, suitable appliances were immediately sent for. But the patient's condition being such as to promise an early return of the convulsions, admitted of no delay, and dilatation was practiced with great perseverance and determination by means of the fingers. The success of this method was such that when the Bames dilators and parallel steel blades arrived, the divulsion was beyond their capacity, but not sufficient to admit the hand. At 9 a. m. no relief being experienced, and every moment seeming to endanger the patient's life, the long obstetrical forceps were resorted to with the intention of either grasping the fœtus in their blades and forcing it away, or effectually dilating the mouth of the uterus by delivering the forceps in the locked position.

The first mentioned plan failed, as no engagement could be procured; but with little difficulty the blades were successfully introduced, locked and gradually delivered, dilating the uterus sufficiently to enable the hand to enter, seize the thighs of a breech-presenting fœtus, and accomplish its speedy delivery. Two modified convulsions occurred after the delivery, and five severe ones previous to it. The normal function of the kidneys was soon re-establisded, and a very satisfactory recovery soon followed.

I offer the history of this case, believing it to illustrate a very valuable and nearly always practicable method of dilating the uterus, and thinking that it may be new to others as it has been to me.

Dr. Duff: The simple introduction of the forceps through the os, locking them without grasping any portion of the child, and withdrawing them for the purpose of dilatation, it appears to me, would be impossible except where the head was still above the superior strait, where there was the same condition in a breech, or where there was an oblique presentation. I have frequently introduced the forceps where the os was only dilated sufficiently to admit of their introduction with the double purpose of dilating and of traction. I think Dr. LeMoyne's method justifiable.

Dr. Blume: If delivery by the head should be impossible, I think it is safest to turn by the hand and extract; a woman could be delivered in that way. I do not know in this case whether the child was living or not. I think we have other measures which should be tried first; for instance, anæsthesia.

Dr. LeMoyne: The dilating of the os, I stated in my paper, was done by physical means. I introduced my fingers, first one finger and then another finger beside it, and finally two fingers and the thumb, until I reached a degree of dilatation that would admit the blades of the forceps consecutively. I also stated that, having no suitable instrument for the purpose when the case was thrust upon my treatment, I had to resort to natural means, and by the time the instruments arrived by which I expected to accomplish dilatation, I had already dilated to a sufficient extent with my fingers to introduce the blades of the forceps, and my diagnosis of the position being still uncertain, I introduced the forceps with the intention of seizing any part which might present. It strikes me as very fortunate, though, and resulted certainly very favorably.

Dentist—"Mr. Doppenheimer, you won't feel me pull the tooth. The gas will make you insensible. You won't know what's going on."

Doppenheimer—"Ish do so? Well, I dinks I coomes to-morrer."

Dentist—"But why not let me pull it to-day?"

Doppenheimer—"Well, I don' yoost know how much monish der wash in my pocket-book.—*Life.*

Western Medical Reporter.

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JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

The American Electro-Therapeutic Association will hold its first annual meeting at the Hall of the College of Physicians, corner Locust and Thirteenth streets, Philadelphia, Pa., Thursday, Friday and Saturday, September 24th, 25th and 26th, 1891, under the presidency of Dr. G. Betton Massey.

Physicians interested in the discussion of electricity in medicine are invited to attend without further notice. WM. H. WALLING, M. D., Secretary, 2005 Arch St., Philadelphia.

The Mississippi Valley Medical Association will hold its seventeenth annual session at St. Louis Wednesday, Thursday and Friday, October 14, 15, 16, 1891. Reduced rates and an excellent program will bring out a large attendance. The medical profession is respectfully invited. The officers are as follows: C. H. Hughes, M. D., President, 500 N. Jefferson ave., St. Louis; E. S. McKee, M. D., Secretary, 57 W. 7th street, Cincinnati, O.; I. N. Love, M. D., Chairman Committee of Arrangements, 501 N. Grand ave., St. Louis, Mo.

Dr. J. C. Reeve, of Dayton, read a paper before the Ohio State Medical Society upon the A. C. E. mixture. He found justification for further study of anæsthetics in the wide difference of opinion as to which is the best agent and in the fact of accidents with both chloform and ether. The origin of the A. C. E. was with Dr. Harley, of London, and it was strongly recommended by the chloroform committee of the Royal Medico-Chirurgical Society of London in 1864. Since that year the author of the paper had used it on all sorts of patients, for all kinds of operations, almost exclusively as an anæsthetic except in obstetrics and for young children. Was the alcohol of the mixture of any value? This was answered decidedly in the affirmative upon chemical grounds—the union was a chemical combination, not a simple mixture. This annulled one of the most frequently urged objections to the mixture which was the different rate of evaporation of the ingredients. Other objections were considered and especial attention given to the physiological experiments of Dr. B. A. Watson, which showed results adverse to the mixture. Accidents from the A. C. E. mixture were studied; there had been three deaths and a number of cases in which dangerous symptoms were manifested; of the latter the author had met with three in his own practice covering a period of twenty-six years. But the mixture was not presented as an absolutely safe anæsthetic because such a thing does not exist. Finally, with a due appreciation of the insignificance of the value of any individual experience with anæsthetics, the author expressed his strong conviction of the advantages of the mixture as compared with either of the leading anæsthetics—its greater promptness and lesser unpleasantness as compared with ether; its greater safety as against chloroform.

The Modern Doctor's Education.

When he was twenty-five years old our doctor graduated,
And men of common place ideas pronounced him educated;
But he took three years for travel to learn the new pathology,
To study skin in old Vienna and Koch's bacteriology.

Then came a hard post graduate course which took him three years longer;
Then, though his health was very poor, his intellect was stronger.
His physical condition now approached emaciation,
His fraters ordered two years' rest for his recuperation.

Then polyclinics, it took three years their mysteries to unravel,
And then to study foreign modes three more long years for travel,
When he returned his big mustache with long gray hairs was threaded,
He'd lost his eyesight long before, and now was quite baldheaded.

When he was thirty-nine years old our intellectual giant
Hung out his little shingle, and then waited for a client.
The girl he loved in youthful days had long since wed another,
And had grown a portly matron and an excellent grandmother.

The boys he knew in grammar school seemed ancient as progenitors,
And one was governor of the State, and two of them were senators;
But seated in his office, in retired sequestration,
He waited long for patients with their tales of inflammation.

One day when he was forty-five, came in his earliest client,
John tried to be as quiet as the poetry of Bryant;
But the shock it came so sudden, with such overwhelming power,
That he fell with apoplexy, and he died within an hour.

Kissing Dangerous.

Doctors Claim that Tonsilitis Is Contagious Through Kissing.

Is tonsilitis contagious? is a question which has been puzzling many prominent physicians of late.

During the past two years a great increase in the number of cases has been noticed, until at present it almost resembles an epidemic, but hitherto has not been considered a contagious disease.

In an interview with a prominent physician I learned that the only way of overcoming its progress is to protest against kissing. These are his own words:

"Any charming young lady possessing a sweet, rosebud mouth, with a voice upon which phlegmonis has fastened itself, cannot be kissed without phlegmonis being the price paid by the person who takes part with her in the dual bliss. Her perfumed breath, with its silvery tones and soft whispers, is filled with contagion, in which microbes of marvelous form fly to new fields of pasture. Hosts of cunning but riotous bacteria linger upon her coral lips waiting to board those of the mustached one who recklessly approaches."

Thus it is very plain that young gentlemen and their sweethearts should be very careful that no kissing is done before it is learned by both parties whether tonsilitis has settled in the throat of either.

"Phlegmonis," said the doctor, "is a sort of tonsilitis. The ordinary commonplace tonsilitis is not contagious. Indeed, the ordinary form is merely an inflammation of the tonsils, which are glands in the back of the throat with secretions aiding the process of swallowing. An invasion of the glands by hosts of liptothrix, a bacterium, which is normal in the mouth, are the cause of this most troublesome inflammation. They are a vegetable microbe, which is always raging in the mouth and is nourished by the saliva and bits of food that get into the holes of decayed teeth. This is the reason why people who have had bad teeth are more apt to be troubled with tonsilitis."

The doctor paused for a moment and continued:

"Although phlegmonis is an inflammation of the

tonsils it is vastly different from the ordinary tonsilitis, as it is contagious and the inflammation extends all through the entire mouth and ulcerated tonsils. Then, too, the ordinary tonsilitis very seldom lasts longer than a week and can be cured in about twenty-four hours, while phlegmonis last longer, is more severe and harder to cure."

"Many great singers have been troubled with it, among whom are Patti, Nilsson, Lucca, Campanini and others."

Thus it is evident, if the decision of prominent physicians may be believed, that kissing is really a dangerous pleasure, and that those who take part in the dual bliss should be very cautious not to approach their real enemy as a friend with open arms only to be deceived by the friendly greeting of its spy who awaits them with a fascinating smile, while behind the scenes an army of bacteria is impatiently waiting the time which is sure to come when they can spring upon the innocent person who is conquered by its cunning, scheming ways.

But will this advice of these physicians be considered?—*New York Herald.*

This thing is getting serious. Hath it come to pass that the irrepressible and efficacious clove must give way to iodoformized taffy tolu or bichloride troches? Must osculation be performed under strict asepsis? If so, then is the rising generation undone. A kiss to be just right must be more or less of an impromptu affair —caught on the fly as it were. Calm, cold, philosophical and scientific deliberation will not do here. A due regard for the flavor of the nicotiana tabacum on the one hand and the soul searching aroma of the pulmonary exhalation of ye constipated fair upon the other, are all that the worst of prophylactic cranks can expect in the matter of osculation. Let our pseudo-scientists beware. Their misguided enthusiasm may bring them contumely and discredit; but make kissing unpopular? Never! As a light and healthful system of calisthenics, a means of innocent and soulful recreation, a stimulus to intellectual and spiritual ambition, the process of osculation cannot be surpassed. It is an old and time-honored institution. It was regarded with high favor as far back as the days of Rameses. Indeed it is said that all of the Pharaohs looked upon it not as a besetting sin but as a Kingly attribute. It is related that the common council of Cairo once enacted a law restricting indulgence in the luxury of kissing to the aristocracy. Whether this had anything to do with the exodus of the tribes of Israel is not known, but it is to be presumed that it was one of the chief sources of dissatisfaction. Revolt against the iron heel of the oppressor was to have been expected. Let not therefore the microbio-maniac tamper with this ancient and honorable custom. And all ye maidens and love lorn swains be of good cheer. The mouthings of the aseptic fiend shall be harmless against thee. It shall not be said "thou shalt not kiss," but that "thou shalt not kiss any but those who are pleasing unto thee and wholesome in thy sight." We say not unto thee, kiss antiseptically or not at all, but see to it that thou kissest with great discretion and much applause.

We venture to say that most men would face Adelina Patti without fear if all the diptheritic cocci on earth should say them nay.

Always providing of course that "Barkis was willin."

Abstracts.

Ophthalmology.

Cases of Ocular Complications of "La Grippe." —J. Morrison Ray, M. D. *Am. Pract. and News.* Mrs. B., after a severe attack of what was supposed to be "La Grippe," noticed the sight of left eye was obscured and experienced a neuralgic pain around that eye. There was no external evidence of disease, but she could only count fingers at six feet. An ophthalmic examination revealed an anæmic optic nerve and retina. The blood vessels were small and the disc pale; no gross lesion. The next day, after a solution of atropine had been used, another examination was made, but beyond the exsanguinated appearance of the nerve and retina nothing was found. This eye continued to improve under treatment, but at the expiration of six days the right eye became affected, presenting about the same appearance when examined that the left eye had. Tonic treatment was ordered and atropine applied locally when gradual improvement took place.

Case 2 was that of a lady thirty years of age who during an attack of "La Grippe" had severe conjunctivitis that yielded to local treatment, but a few days after she noticed rings around the lights, sight became very dim, and neuralgic pains were felt. When first seen there was only perception of light in the right eye; injection of the blood vessels of the conjunctiva, shallow and hazy anterior chamber, dilated pupils, with tension +2, and all the symptoms of acute glaucoma. As the condition of patient did not admit of operation the local use of eserine was tried, and four days later, as the symptoms were only partially allayed, double iridectomy was performed. Owing to the slight anæsthetic effects of cocaine and the very shallow anterior chamber the operation was attended with some difficulty, but relief was obtained for all the eye symptoms, and vision was 20-40, although the ophthalmoscope showed still present, slight arterial pulsation on the disc with a shallow excavation.

Case 3. Upon examining a convalescing patient, found an acute inflammation of the lachrymal sac, with an intense erysipelatous looking redness extending over the side of cheek and nose. She stated that during the height of the attack her eyes had been red; light was painful, and since then the left lower lid had begun to swell. An operation was advised for evacuation of pus, but patient would not consent to the same being done. Two days after, as there was evidence of rupture externally, the canaliculus was slit up and the pus removed from the lachrymal sac. It was washed out with solution of boracic acid and pyoctanin, and lachrymal probes passed into the nose. The trouble in the sac subsided, but there still existed a troublesome epiphora.

Detachment of the Choroidea.—Mr. Story. *The Lancet.*—A man had been kicked by a horse when a child, on the right eyebrow and nose, and some years after that had received a blow from a stone at the outer angle of the left orbit. His right eye gradually failed in sight when he was twenty years old, and the left one about a year before he came under observation, but these changes did not seem to be due to the injuries received. During the two years in hospital no important changes had occurred in the state of the

eyes, his vision remaining constant for fingers at two metres in the right and four metres in the left eye. Tension normal, or at times slightly subnormal; media clear except for a nebula on the left cornea, and opacities in both vitreous chambers; discs slightly hazy and marked perivascular thickening about all vessels. In the right there were two hemispherical detachments of the retina, one at the macula lutea, about three times the diameter of the papilla, and one at the inferior nasal periphery of a larger size, extending to the extreme periphery of the fundus. Except at these two places, the chroidal stroma was everywhere as distinctly visible as the retinal bloodvessels, and required exactly the same glass to observe it by direct ophthalmoscopic examination.

Medicine.

TWO CASES OF FORCED RESPIRATION.—GEORGE E. FELI., M. D. *Journal American Medical Association.* Having been called to see a young lady who had taken a large dose of morphia, found her in a comatose condition, cyanotic and pupils markedly contracted. Immediately proceeding to force respiration with the face mask, the cyanosis was overcome and an improvement was noticed in the heart's action, which continued for several hours when it was observed that the cyanosis was again increasing and the patient's condition becoming more and more serious. She was not conscious, and by hollowing into the ear, ocular reflexes were noticed in a contracting of the orbicularis muscles. As there appeared to be no hope of recovery, tracheotomy was made and a tube inserted into the trachea. Connection then being made with apparatus, forced respiration was kept up and the results were very satisfactory in many respects. The condition of the patient, however, continuing so serious a fatal termination was expected at any moment. No pulse existed at either wrist and auscultation detected no heart movement, but two conditions still indicated that life was not extinct, namely the pupils continuing contracted and cyanosis did not supervene.

Forced respiration was kept up for several hours, and upon examination the heart was found to be slowly beating, and these reflexes became more and more marked until patient showed signs of consciousness. After fourteen hours the young lady was allowed to breath for herself and she made a good recovery.

Case 2. On March 11th, at half past eleven in the morning was called to see a man who had taken an overdose of medicine by repeating a prescription given him by his physician containing phenacetin, morphine and cocaine. He had had severe neuralgia of the stomach, and had taken repeated doses without regard to instructions, consequently an overdose was the result. Forced respiration with the face mask was immediately commenced, quickly overcoming the marked cyanosis, but it was continued all afternoon when the cyanotic condition seemed to increase, owing to base of the tongue falling back and occluding the larynx. A ligature was placed through the tongue and the organ pulled well up, resulting in the lungs being more readily inflated.

Oxygen gas was administered in connection with the forced respiration apparatus, but the patient responded very little to the respiratory work, it being evident that the influence of the poisons was peculiar, and although the catheter was used as often as was necessary, there was no elimination of the drugs. At 10 P. M. the next day tracheotomy was made and forced respiration kept up by direct method, the result being so satisfactory that in one hour the patient was apparently improving. The forced respiration was continued until 5:30 in the morning, and the man was breathing with comparative ease, when a spasmodic contraction of the stomach occurred, and its contents were ejected with force. Every effort was made to prevent any of the vomited matter from passing through the lungs, but the spasm caused the heart's action to cease, and it was impossible to do anything more to save his life.

A CASE OF ANTHRAX INTESTINALIS IN MAN.—*Univ. Med. Mag.*—Goldschmidt (*Münchener med. Wochenschrift*, Feb. 10, 1891) reports a case of anthrax in a brushmaker where infection probably took place from the bristles used by the patient in his work. The disease began with sudden swelling of the submental region, accompanied with fever, chill, headache and wild delirium, followed by hæmatemesis, bloody stools and dispnœa. Death occurred on the fourth day. The section revealed the serous cavities partially filled with bloody serum, the glands of the neck swollen with hemorrhagic infiltrate, ecchymoses on the pleura of both lungs, the peritoneum, and on the mucous membrane of the stomach and small intestines. The spleen was large and soft, and there was enormous swelling of the mesenteric glands. Microscopic examination of the tissues and fluids showed myriads of anthrax bacilli.

Surgery.

DISLOCATION OF THE LOWER END OF THE ULNA.—WM. HORROCKS, M. D., F. R. C. S. *The Lancet.*—Two months before seeing this man his left forearm was caught between two heavy boxes while in a position of extreme pronation. The left forearm was much wasted, the elbow, wrist and fingers somewhat flexed and could not be straightened without pain, the lower part of arm being much narrower than natural, and presenting an oval, oblique prominence over the back of radius. Upon examination this was found to be continuous above the ulna, and the styloid process was separated some distance from the cuneiform bone. The head of the ulna was freely movable and quite separable from the radius whose inner articular surface was easily mapped out. Above the lower end of the radius there was some thickening and irregularity.

Chloroform was administered and the dislocation reduced, but the deformity again readily reproduced itself.

CASE OF SUB-PAROTID AND RETRO-PHARNGEAL SARCOMA; OPERATION; RECOVERY.—JAMES WILSON, M.D., F. R. C. S.—Mr. G. S., 38 years of age, came under attention for swelling beneath the right ear, which was painful and tender to touch, and which he had first noticed some two years before. At that time the application of iodine gave him relief for nine months, when while in the act of drinking he felt something giving way in his throat and for the first time discovered a swelling which gradually increased, his voice becoming thick, respiration difficult and during mastication he experienced pain and repeated attacks of hemorrhage, from wounding of the mucous membrane by the teeth. He stated that he was unable to sleep the past few weeks although drowsiness had troubled him.

Examination revealed the posterior wall of the pharynx pushed forward by a growth, the soft palate stretched and the uvula turned to the left side. Below the tumor was in contact with the tonsil; was continuous above the hard palate, and reached nearly across the pharynx. When the patient opened his mouth and took a deep breath, a finger like process was seen extending from the lower margin of the growth. The pharyngeal mucous membrane was vascular and freely movable. Beneath the ear and behind the ramus of the lower jaw there was another tumor evidently connected with that in the pharynx, as fluctuation was apparent between them. A few weeks after this examination the following operation was performed:

Chloroform was administered, and as the anæsthetic produced labored breathing, the face becoming livid and the pulse feeble, a preliminary laryngotomy was rendered necessary. Upon air being admitted to the lungs, the general condition of the patient rapidly improved. An incision was then made over the anterior border of the sterno-mastoid muscle, beginning at the pinna of the ear and extending downward for five inches, its center being over the tumor. When the sterno-mastoid was reached and drawn backward, the glistening capsule of the tumor came into view. The growth was easily separated from its connections, but the laceration of a large vein caused profuse hemorrhage. This portion of the growth rested on the posterior belly of the digastric, the stylo-hyoid muscles, and the carotid sheath, in relation above with the parotid gland, and in front with the ramus and angle of the lower jaw. The tumor was now found to pass between the ramus of the lower jaw, and stylo-maxillary ligament, and to reach the prevertebral fascia between the external and internal pterygoid muscles. The jaws were separated by a screw gag, the pharynx plugged with a sponge, and the structures of the cheek freely divided in order to gain more room. A clear view of the pharyngeal portion of the growth was now had, and the capsule was exposed its entire length by an incision. The remaining attachments were separated by the fingers, and the entire tumor removed from the mouth by firm traction. Deep silver and superficial silk sutures were used to unite the incision and the sponge removed from the pharynx.

The tumor was found to be bell-shaped and enclosed in a firm capsule, and about the size of an orange. Upon examination microscopically it was a mixed glandular sarcoma, resembling in structure the parotid gland. The laryngotomy tube was removed fifteen minutes after operation, and for the first twenty-four hours the patient was fed by rectum and afterward took liquid food without inconvenience. The highest temperature was only 101.5° and the wound healed by first intention, the man making an uninterrupted recovery, still continning well after the expiration of fourteen months.

A Pin Swallowed Passed per Urethram.—J. P. Tuttle, M. D. *N. Y. Med. Jour.* A child aged five years, while playing with a bent pin in her mouth, drew a sudden breath, and the pin passed into her throat. It lodged in the fauces, but was dislodged and swallowed upon her mother attempting its removal. No cathartics were given for fear of exciting too great peristaltic action while the sharp foreign body was in the alimentary canal, but the little one was given food containing a large proportion of excrementitious matter, and as the pin had not passed with the stools in ten days, it was thought that it had become embedded in some of the intestinal folds. The following day the child complained of a severe pain upon urinating, and upon examination of the vessel the pin was found, somewhat corroded but otherwise just as swallowed. The pin undoubtedly entered the bladder through the intestinal wall, as the symptoms indicated irritation of that organ.

A Case of Congenital Malformation of the Ribs.—J. T. Osborne, M. D., reports an interesting case (*Archives of Pediatrics*, May, 1891):

The subject, a boy of thirteen years, has on the left side of the chest a triangular-shaped cavity of considerable depth, entirely unprotected by bone or cartilage formation of any kind. The right thorax is normal. The sternum is projected forward, not unlike that of "pigeon-breast," and tipped so that the left half is projected more forward than the right half.

The heart is on the right side, the apex beat being a little below and to the right of the nipple, in the fourth intercostal space.

On the left side the malformation of the chest wall and the arrangement of the ribs can be quite accurately mapped out.

The first rib is present. The second rib follows its usual course to within five-eighths of an inch of the costal cartilage, and then stops with rounded end, thus leaving a space of five-eighths of an inch between it and the cartilage.

The third rib comes to the region of the axilla, and then turns abruptly downward, meeting the descending fourth rib on a line a little below the level of the left nipple, thus leaving a space of from two and a half to three and a quarter inches between the rib and its (third) costal cartilage; the distance between this rib and its cartilage, of course, varying with the position of the left arm. The third costal cartilage ends abruptly and sharply. The fourth rib is descending obliquely in the lateral region, leaving an appreciable space between it and the third rib, but curving to the front as it descends, it meets the fifth costal cartilage, also descending, at a point two inches below the left nipple, forming the lowest point and the apex of the concavity. The descending third rib is lost in or behind the fourth rib, at, as before stated, a point a little below the line of the left nipple.

The fourth costal cartilage descends slightly and ends abruptly in a sharp point one and a half inches distant from the descending third rib. At this point, or rather on this point, is the left nipple, which is a little below the level of the right nipple.

The fifth, sixth and seventh ribs descend parallel with the fourth, lessening the obliquity with the increase of the number of the rib, and meet the descending costal cartilages, the fifth rib losing itself in the mass of cartilage at the junction of the fourth rib and the fifth cartilage.

The space destitute of rib protection is triangular in shape, with the apex at the junction of the fifth costal cartilage and fourth rib, two and a half inches below the left nipple. The base extends from the angle of departure of the third rib from the second rib to the third costal cartilage.

The second, third and fourth costal cartilages,

especially the last two, stop abruptly and sharply, projecting outward over the receding inner wall of the cavity—almost projecting through the skin. The surface measurements of the cavity are two and one half inches, base three inches from the third cartilage to the apex, and from the apex to the axillary angle of the cavity is five inches. The floor of this space is concave, interposing apparently between the stethoscope and the lung nothing but skin, fascia, and pleura. This concave floor naturally rises and falls with each respiration. The respiratory sounds are simply intensely exaggerated.

REIMPLANTATION OF BONE IN TREPHINING, OPERATION FOR TRAUMATIC EPILEPSY. Robt. F. Weir, M. D., N. Y. Med. Jour. When 17 years of age this man sustained a depressed fracture in the right frontal region, from the explosion of a musket. He was seized with epileptic fits which continued to increase in frequency until he had from two to five each day accompanied with considerable maniacal excitement. There was a marked bony depression at the site of the old injury, above the frontal sinus. A disc of an inch trephine, centering in this spot was removed, and the internal table found angularly driven inward, but the spur was rounded at its summit and non-adherent to the dura mater. Nothing abnormal was found by a probe passed between the dura and skull, in the immediate vicinity of the trephine opening, and as there was an improvement in his condition, he was not seen again for two years when there had been relapse of the fits, three to four times a month, accompanied by the maniacal excitement, associated with great pain and a burning sensation in the region of the forehead. Deciding to make an exploratory examination of the brain itself, a large rectangular flap was carried upward from the eyebrow so as to expose the frontal bone on its right side from the median line to the outer angle and up to the hairy scalp. Three one inch discs were removed by the trephine, and the bone opening coalesced and enlarged by a double gouge forceps until it reached a size of three by two inches. The right frontal sinus was largely invaded, and found to contain nearly a teaspoonful of pus, but no necrosed bone. A drill was carried from the bottom of the sinus into the nostril, a drainage tube inserted, and packed with iodoform gauze to protect the cerebral tissues from infection. A dural flap was then lifted, but the frontal lobe appeared to be normal. One strong adhesion was encountered between it and the pia, which was divided. The median fissure was separated by spoon-handles, and base of the lobe lifted from the orbital plate so that they both could be exposed. As there seemed to be no reason for cutting into the brain, the dural flap was closed by sutures and the three bone discs were replaced, the interstices filled up with bone chips and the entire wound closed.

These pieces remained quite firm and the man promptly recovered from the effects of the operation, and did not have any recurrence of the epileptic fits during the two months he remained under observation.

REMOVAL OF A SUPERNUMERARY SHOULDER IN AN INFANT THREE HOURS OLD.—C. M. BALFOUR, M. D. *International Journal of Surgery.*—In January was called to attend a woman in confinement, which had been an unusually rapid one, the child having been born thirty minutes before my arrival, the afterbirth expelled, and mother doing well. She was a strong, fleshy woman, twenty-five years of age, father healthy and a hard worker, and both giving good family history for health and longevity. Upon examination of the child there was a congenital absence of abdominal muscles, the bowels protruding, and the liver, stomach and heart pulled downward, the latter being situated one and one-fourth inches below the border of the ribs. There were also two areas where the abdomen was not covered with skin, nothing but a bluish membrane covering the intestines in these places.

An unnatural appendage was attached to the abdomen of the child, which looked like the upper quarter of another child, and which could be raised to a considerable extent from the body. The heart beat 150 times per minute and was quite feeble. There was also marked cyanosis and debility and danger from collapse and exhaustion appeared imminent. The vast hernia or protrusion could not be manipulated so long as this supernumerary member remained, so its removal was advised, which was at once done.

A box two feet long by one foot wide was prepared with holes so as to allow bandages to run under and over. The infant was placed on this, its limbs bound down close with arms extended upward. No anæsthetic was given, but the most rigid antiseptic precautions were taken. Starting with an elliptical incision, the part was removed. The spine of the scapula of this supernumerary member was attached to the lower end of the sternum of the child. The wound remaining was almost circular, about three inches in diameter. The heart was pulled down about one and a half inches below the ribs, where its pulsations could be seen plainly, and was covered by a layer of fibrous tissues. Iodol was dusted on; the upper and lower edges of the wound closed by quill sutures, and the operation completed with interrupted sutures, a drainage tube being inserted. The two places on the abdomen were denuded at edges; approximated by interrupted sutures; the bowels, liver, stomach, and heart returned to their natural positions, and a bandage applied. The whole operation lasted half an hour, and the child did not cry much, showing no signs of shock.

During the night it had ten convulsions, but they became less severe during the next twenty-four hours, The wound was washed out with an antiseptic solution, and the skin united over the denuded spots by first intention. At the age of ten weeks the child weighed sixteen pounds, and was healthy, hearty and natural.

The part removed weighed twenty-two and a quarter ounces, and contained scapula, three ribs, clavicle, humerus, radius, ulna, carpal, and matacarpal bones and phalanges.

CANCER OF THE TONSIL.—*The Lancet.* DR. ONODY showed at a recent meeting of the Buda Pesth Medical Society an old man with a tumor of the right tonsil as large as a small egg, which gave but little trouble, and did not interfere either with respiration or deglutition. It was evidently a scirrhus, but was not operated on on account of the patient's great age and weakness. Subsequently Dr. Josef Neumann mentioned to the Society that he had seen no less than three other cases of primary cancer of the tonsil in the Rochus Hospital.

CASE OF REMARKABLE SURGICAL INTEREST.—W. W. Stennett, M. D. *Univ. Med. Mag.*—A switchman in the Chicago & Northwestern Railway yards picked up the arm of a man which had been crushed off at the shoulder joint, and having a shirt sleeve still on. The owner of the lost member could not be found nor any clue to the accident obtained for five days, when the police found the man five miles from the scene of the injury exhibiting his mutilated shoulder. No dressing had been applied in all this time, nor any vessels tied to prevent bleeding. He was sent to the hospital and on examination it was found that the arm had been torn out of its socket, leaving the other elements of the shoulder, the clavicle and scapula, intact. He recovered perfectly and the marvel was the ability of the man to travel about for five days, as the shock usually renders the person helpless and the vessels are obliged to be ligated. Had one or two more days elapsed without his receiving attention, it is not improbably that fatal bleeding would have ensued from the sloughing of the crushed vessels.

Therapeutics.

THE SALICYLATE OF MERCURY.—In a communication to the Polyclinic Society of Rio de Janiero, Dr. Aranjo has given the following as the advantages (*Le Prog. Méd.*) of the above salt of Mercury: 1. That it is readily borne ; it does not give rise to gastralgia, enteralgia, or diarrhœa, which frequently follow from other mercurials, not even excepting the protoidide and the tannate. 2. It never produces mercurial stomatitis. 3. Its action is more energetic than that of any other mercurial salt now in use. He recommends a dose of ⅓ gr. in pill form, three times a day. This remedy has been tried in numerous cases of syphilis, since the above communication was made with perfect success.

NITRO-GLYCERINE, CHLORIDE OF GOLD AND SODIUM IN ALBUMINURIA.—For a case of *albuminuria*, patient decidedly anæmic, persistent headache and disordered digestion, Prof. Bartholow offered the following treatment: Make good blood; diet of skimmed milk as the basis ; koumiss, buttermilk. Give fluids freely, but not too much directly after meals; allow two or three hours to pass before giving. Lower the vascular tension, and to do this give nitro-glycerine. Act upon the kidneys to arrest the progress of the disease by giving chloride of gold and sodium, 1-15 grain, three times a day for first three weeks, then twice a day ; or may use mercury bichloride in place of gold and sodium salt. In giving nitro-glycerine, begin with minim doses of one per cent. solution.

PILOCARPINE IN ITCHING OF JAUNDICE.—Dr. Goodhart (*Br. Med. Jour.*) has used pilocarpine successfully in relieving the itching of jaundice in six cases, with not a single failure. One patient had one-third of a grain injected many times, and always with this result, that during the first twenty-four hours he was quite free ; the second he was fairly free and the third he was considerably troubled again, and the dose had to be repeated. When we consider that there is really nothing that can be relied upon to relieve this distressing symptom of jaundice, Dr. Goodhart's plan may prove of service.

NITRO-GLYCERINE IN TINNITUS AURIUM.- Lautenbach has found nitro-glycerine useful for the relief of ringing in the ears, associated with functional and organic heart disease, but not due to serious ear trouble. Marked benefit was usually obtained within a day or two, although occasionally the remedy was continued for two or three months before much improvement was noted.

ACONITINE.—A case of sciatica, originating by strain, having persisted for four months and resisted iodide of potassium and colchicum, and having been only temporarily relieved by atropine and morphine, was finally made to succumb to gr. 1 200 of acontine three times daily, prescribed by Prof. DaCosta. The patient became almost immediately much better, the pain disappeared and improvement continued. After a week the remedy was given but twice daily, and gradually withdrawn.

MURIATE OF CAFFEIN.—Muriate of caffein has been used by Ferrier in removing foreign bodies from the cornea. Anæsthesia was complete.

BENZOIC ACID.—Benzoic acid has been found by Dr. Roben to decrease the tissue waste, which is one of the chief causes of exhaustion from typhoid fever.

CHLORIDE OF BARIUM IN HEART DISEASE.—According to *Les Nouveaux Rémedes*, H. A. Haze prescribed the chloride of barium in seven cases of heart disease (once for an infant six years old with lesion of the mitral, once for acute dilatation of the heart, twice for lesions of the aorta, and once for lesions of the mitral in an adult, and twice for functional disturbances of the heart). The results obtained were very good. In all cases the drug slackens and regulates the heartbeat, augments the amplitude of the pulsations without producing as pronounced a tension as the finger applied to the artery feels after digitalis. At the same time the pulse is considerably prolonged. No renal troubles. The author administered the drug in a one-per-cent water solution; one and a half to two grains of this solution repeated three times daily tor children, and five grains two or three times daily for adults. In these doses it may be considered as not toxic. As it is, besides, almost tasteless and inexpensive, and acts as rapidly as digitalis, it is to be supposed that this drug will soon render valuable service in the treatment of heart disease.—*Journal de Médecine de Paris.*

SPARTINE SULPHATE.—Spartine sulphate is said to be a cardiac stimulant and tonic. It can be used in morphinism or opiumism with success. Dose, hypodermic one-third to one-half a grain; dose of fl. extract, one to two drops. By all means give papine a trial; also spartine.

STRYCHNINE SULPHATE.—In fatty hearts, with occasional attacks of pseudo apoplexy, Prof. Da Costa prescribed gr. 1 40 strychine, three times a day.

CAFFEINE.—Drs. Sée and Lapicque have made some valuable researches on the action of caffeine, the results being published in the *Bulletin de l'Académie de Médecine.* They find that, when given in small doses, the drug facilitates muscular labor by increasing the activity not of the muscle itself, but of the corresponding cerebro-spinal center. This diminishes sensation of effort and keeps off fatigue. The drug certainly prevents, for a time, labored breathing and palpitations due to effort. It is a mistake to suppose that it checks waste. There is no such thing as effort and action without corresponding

waste; indeed, the one implies the other. More correctly, caffeine allows more exertion through a kind of physiological usury. The ingestion of aliment allows of a certain amount of exertion, but fatigue always comes on before all the assimilated products of digestion are used up. Thus a reserve is left. Caffeine uses up more or less of that reserve. Hence, the drug is only of temporary benefit. When employed for too long a time, especially when no fresh food is at hand to make up for waste and to afford more reserves, caffeine is, as might be supposed actually noxious.—*Ibid.*

SULPHIDE OF CALCIUM IN PHITISIS.—Dr. Witherle, of St. Paul, in a note in the *Medical Record* of January 7, asks physicians to make a trial of the sulphide of calcium in early phthisis. Dr. Witherle has used the drug a number of times and always with marked bene- and although the benefit has not been permanent in fit, advanced cases, in at least two cases of well-marked phthisis in the early stages there has been a complete recovery. The drug is to be given in as large a dose as can be tolerated, which is usually found to be a grain every two hours. The *British Medical Journal* for December 24 has a note from a physician in Ceylon, who has used the sulphide of calcium successfully in elephantiasis arabum, a disease hitherto uninfluenced by medicine and supposed to be due to the presence of *filaria sanguinis hominis*. It should be remembered that sulphide of calcium deteriorates if exposed to the air, and must either be fresh or preserved in gelatine coated pills.

THE SALICYLATE OF MERCURY.—Dr. Henry T. Inge reports in the *Atlanta Med. and Surg. Journal** a number of cases of syphilis treated by this preparation, but it does not appear to be as favorable in its actions in general as the bichloride. The dose given internally may range from 1-10 grain up to 4 or 5 grains a day. The advantages of the salicylate over the bichloride may be summed up, according to the author, as follows:

1. It is supported easily by the stomach without bad effects.
2. It has decided curative effects on mucous patches and syphiloderms when used externally.
3. It does not produce mercurial ptyalism.
4. It is of great advantage in the treatment of a parasitic disease.
5. It is effective when the bichloride has no effect.

Obstetrics.

AN INCARCERATED RETROFLEXED PREGNANT UTERUS, WITH GREAT DISTENTION OF BLADDER. SUCCESSFUL REPOSITION. RECOVERY. — Cornelia Kahn, M. D., *Med. and Surg. Reporter*. A German woman, 34 years of age, presented herself for examination, stating that she was suffering intense pain in the abdomen, and was unable to urinate. It was almost impossible for her to lie down so severe was the suffering occasioned. Upon exposing the abdomen there appeared a peculiar tumor, the distension being very marked, the integument having a bluish thinned-out appearance, suggesting the presence of a rupture. The swelling extended to the umbilicus and was not uniform, for at this region there was a pointing or bulging which simulated a hernia. A vaginal examination revealed the cervix drawn up near the symphysis pubis and a round body was felt in the posterior cul de sac. The os uteri had the soft velvety character of early pregnancy, and upon questioning the woman found the last menses had appeared some four months before. An attempt was made to draw the water with a metallic catheter, but failing a flexible English one was successfully used and as the tumor gradually disappeared the pain ceased. Three pints of urine were drawn off, but the bladder was not entirely emptied. It was found to be of a sp. gr. of 1015, neutral reaction and without albumen.

Bimanual examination confirmed the belief that there was a retroflexed, incarcerated pregnant uterus. Patient was directed to assume the knee-chest posture often during the day, and keep the bladder emptied, but three days afterward she again made her appearance, the bladder being distended but not so much as on her previous visit. She was relieved by catheterization and the following day was admitted to hospital for treatment to correct the displacement.

She stated that she had been married for twelve years, had five children, the last two and a half years before. After first birth, menstruation was painful although it had not been so before. Had bearing down pains, with falling of the womb, together with slight urinary troubles during child-bearing periods, of the last two conceptions. During the last four months the bearing down pains again commenced, although she still continued to do ordinary housework. In the second month micturition became more frequent, effected with difficulty and accompanied with pains in back and down the legs. Vesical tenesmus gradually increased, micturition was very difficult, pains became intense and the flow of urine scant, until at last voluntary micturition became impossible. Dysuria gave way to the incontinence of retention and when she came to dispensary had not passed any, except a few drops for nearly forty hours.

Compelling her to lay in the knee-chest position in bed for almost the entire time, the bladder was carefully emptied, and with gentle manipulation, making slight pressure on the retroflexed fundus through the posterior cul de sac, the body of the uterus was disengaged from under the promontory of the sacrum. The vagina was packed posteriorly with wool pledgets and a No. 8 flexible catheter inserted in the bladder and allowed to remain until the next day to prevent the bladder from becoming full. The following day the uterus was in a much better position, the fundus having risen into the abdominal cavity. The pledgets and catheter were removed and a soft pessary inserted. In two days the fundus uteri was anterior, the cervix posterior, and the patient from this time seemed in good condition.

She was cautioned not to allow her bowels to become costive, and keep the bladder emptied. In due time she was delivered of a fine child, after a normal, easy labor.

*Quoted in *Therap. Gazette.*

A young physician was showing a friend a recent purchase he had made in the way of a skeleton.

"Very interesting," commented his friend. "One of your patients, doctor?"

The Publisher—Don't you think these patent medicines kill many people?

The Dealer—Perhaps they do, but look at all the newspapers they keep alive.—*Life.*

Book Reviews.

"A Text Book of Comparative Physiology," for Students and Practitioners of Veterinary Medicine. By Wesley Mills, M. A., M. D., D. V. S. With 476 illustrations. New York: D. Appleton & Co., 1890; pp. 636. Price, $3. A. C. McClurg & Co., Chicago.

Although this volume is intended more for the use of the veterinary student, yet it contains much that is valuable to the student of medicine. The author has, to use his own words, "endeavored to set before one a short account of what has been deemed of most importance in general biology; to furnish a full history of reproduction; to apply these two departments throughout the whole of the rest of the work; to bring before the student enough of comparative physiology in its widest sense to impress him with the importance of recognizing that all medicine like all science is, when at its best, comparative; and to show that the doctrines of evolution must apply to physiology and medicine as well as to morphology." We cordially commend this book to all scientific persons.

"Quiz-Compends," A Compend of Gynæcology. By Henry Morris, M. D., late Demonstrator of Obstetrics and Diseases of Women and Children in the Jefferson Medical College, Philadelphia, etc. With forty-five illustrations. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut street, 1891.

Nearly one-half of this little work on gynæcology is occupied with a description of the modes of examination and minor operations; and in the abridged form, although there is little room for many illustrations, the author has been very successful in placing them where of the most value. The second half of the book is devoted to treatment of various diseases in this branch, and as a whole will be found of value to the student in the study of this important subject.

"Epilepsy, Its Pathology and Treatment." By Hobart Amory Hare. M. D., B. Sc Philadelphia: F. A. Davis, 1890. Cloth, pp. 228; price, $1.50.

When we announce that this book is the reprint of an essay to which was awarded a prize of 4,000 francs by the Royal Academy of Medicine of Belgium, the worth of it can be readily estimated. It presents in a concise form all literature pertaining to epilepsy, and condenses therefrom that which the author regarded of value to the profession. It is to be hoped with the views as expressed by the author that some remedial remedies may be discovered in the near future capable of curing this dreadful affliction. The medical profession is certainly under obligations to Dr. Hare for this work and the service he has rendered in its presentation.

Plain talks on Electricity and Batteries with Therapeutical Index for General Practitioners and Students of Medicine. By Horatio R. Bigelow, M D. Publishers, P. Blakiston Son & Co., 1012 Walnut St., Philadelphia. 1891.

Dr. Bigelow may be regarded as an authority on the subject of Electricity and his treatise is one of the most complete issued in a compact form. It defines the technical expressions employed in treating of the phenomena of electricity, and describes the energy of the current, insulation, direct and indirect sparks and all other matters of importance belonging to this subject. It certainly gives the general practitioner and student a plain, practical presentation of a difficult subject, which will aid them in understanding the more extensive works that are before the public.

Wm. R. Warner's "Therapeutic Handy Reference Book for Physicians. Just published. Contains Aids in Memorizing Doses, Asphyxia, Treatment of Fevers, Eruptive, Time of Incubation, The Digestibility of Foods, Formulæ Pharmaceutical, etc., Formulary, Medical, Gestation, The Period of Hypodermic Medication, Incompatibles, Parvules, Pills, Soluble Coated, Poison and Antidotes, Posological Table, Prescription Writing, Weights and Measures.

The very useful book above will be sent free to any physician addressing the firm of publishers. As can be seen from the list of subjects given attention it is quite an interesting reference to have.

"Diabetes and its Cause, Symptoms and Treatment," by Charles W. Purdy, M. D. With Clinical Illustrations. Publisher, F. A. Davis, Philadelphia and London. 1890.

Although this is a small volume, it is one of the best essays yet published upon this subject. The author thoroughly understands his work, having made it his special study for over twenty years. Without unnecessary technicality, the work is written so fully and concisely that it cannot be but profitable to the profession, and will fill an important place in the library.

"Medical Symbolism," by Thomas S. Sozinskey, M. D., Ph. D. Illustrated. Philadelphia; F. A. Davis, 1891. Pp. 170.

In the numerous chapters of this book, attention is invited to a number of more or less remarkable matters pertaining to medicine, most of them of very ancient date, some of them being of practical importance. It deals on a whole with a quaint and curious subject, leading the reader into new fields of study and conjecture. Medical mythology is treated of very fully and the most recent archæological and other investigations contribute interesting facts. The perusal of this work is for the purpose of serving to excite an interest in the ample literature and long and remarkable history of the benevolent and learned profession of medicine. It will become of double value to all from the fact that it is the last effort of its talented author, he having died shortly after completing this work.

"International Clinics: A Quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology and Otology." By Professors and Lecturers in the Leading Medical Colleges of the United States, Great Britain and Canada; Edited by John M. Keating, M. D., Philadelphia, Editor "Cyclopedia of the Diseases of Children"; J. P. C. Griffith, M. D., Philadelphia, Professor of Clinical Medicine in Philadelphia Polyclinic; J. Mitchell Bruce, M. D., F. R. C. P., London, Lecturer in Charing Cross Hospital; David W. Finlay, M. D., F. R. C. P., Lecturer in Middlesex Hospital. April, 1891. Cloth. 8vo. Pp. 357. Philadelphia: J. B. Lippincott Company.

This work which it is proposed to issue every three months, will be a collection of the best and most practical and useful clinical lectures delivered at the leading medical colleges of the United States, Great Britain and Canada. Photographs illustrating the most important cases will be reproduced and each volume will be composed of about 350 pages, printed in good form and bound neatly in cloth and half leather. The contents of Volume I. give ample proof of the inestimable value that this book will be to the profession, not only from the clinics reported, but from the list of contributors, numbering the most distinguished and renowned among the medical profession. We heartily recommend every student and graduate of medicine to subscribe for this work for his library, as he will find it a countless source of reference and a valuable aid in his work.

Items of Interest.

Hot claret is said to be a good gargle for sore throats. It is most valuable as a preventive.

The Paris Faculty of Medicine registered 4,000 students during the last academic year.

There is more than one leper to every 5,000 of the population in the vale of Kashmir. The entire number of inhabitants is only half a million.

A physician in Honduras states that nearly all the children born in that country, male and female, have at birth developed breasts, secreting milk.

Dr. John B. Hamilton, who resigned the position of Surgeon-General of the Marine Hospital Service to accept the position of Professor of Surgery in the Rush Medical College, Chicago, has been succeeded by Dr. Walter Wyman.

A perfectly formed male child, weighing but three-quarters of a pound, was recently born in Newark, N. J. Its hands and feet are no larger than a bird's claws. The child is apparently healthy with every chance of living.

Another cure is reported by the *Med. World.* A half ounce of ground quassia is steeped in a pint of vinegar. A teaspoonful in a little water should be taken every time the liquor thirst is felt. It satisfies the cravings and produces a feeling of stimulation and strength.

It is proposed to hold a Pan-American Medical Congress during the world's fair. Much important work may be expected from a body of this kind. Untold advantages will come from the exhibitions, from study, from contact with fellow laborers, the teaching of the period, aside from results already attained and upon which future progress is to rest.

The physicians should put forth every effort to make this congress a grand success from every point of view.

"The Longevity of the Jews," says Dr. Hasmes, "has long been demonstrated by statistics. In Prussia, the cradle of Judaism, there are three still born Christians to one Jew; the Christian mortality is 23 per cent, Jewish, 15 per cent; from one to five years, 36 per cent of Christians die against 25 per cent of the Jews; and at Furth the average duration of life is twenty-six years among the Christians and thirty-seven among the Jews. Hence, the Jew is a better subject for assurance, which, by the way he perfectly understands, and takes for heavy sums."—*L' Avenir Economique.*

Tobacco and Dyspepsia.—No fair-minded person will dispute that tobacco, tea and coffee are injurious when used to excess. All of these act both by depressing the nerve force of the stomach, and by interfering with the digestive processes. The majority of men, however, in a state of health can use tobacco to a certain extent without injury. This amount varies with individuals, but in any case is small. Those men who must have some vice are no doubt benefited by a moderate use of tobacco. The tobacco habit is the least harmful, makes them happy and keeps them from something worse.

Wit and Humor.

"Oh, Professor," exclaimed sentimental old Mrs. Fishwacker, during a private organ recital in her new music room, "do you pull out that sweet nux vomica stop once more!"

At the Wrong Business.—Physician: "What is your profession, sir?" Patient (pompously), "I am a gentleman." Physician: "Well, you'll have to try something else; it doesn't agree with you."—*Life.*

An exchange gives the following:—The Doctor's daughter: "I declare you're a dreadful fanatic, Mrs. McCizzon. I do believe you think nobody will be saved but you and your minister."

Old lady: "Aweel, my dear; ah whiles hae my doots about the meenister."

Wife (to husband)—John, mother is very sick this morning, and I wish you would stop at Dr. Pellet's office on your way down town and send him here at once. Husband—Why not employ young Dr. Smith? He is just beginning to practice and ought to be encouraged. I believe in giving young men a show.—*New York Sun.*

"What did the doctor pronounce your ailment?" inquired she with a tremor of anxiety in her tone as she came into her husband's sick room.

"He pronounced it as if it were spelled bronkeetus," exclaimed the indignant Bostonian, straightening himself up in bed, "and I requested him at once to make out his bill and go."—*Chicago Tribune.*

The Light that Failed.

A Sonnet to a Dead Duck.

And what of poor Koch and his wonderful squirt,
That would lay old King Tubercle low?
Can it be that he only struck for pay dirt,
And that that caused his wonderful blow?
Oh where are the patients his votaries cured,
With their caverns and rhonchi so grim,
Their bacilli filled sputum, the sweats they endured,
Their poor bones sticking out through the skin?
The hospital wards are all empty they say,
And nurses and doctors alone
Remain to thank God they're permitted to stay,
To mourn the poor victims long gone,
To the uttermost parts of the country of shades,
To the land of the sweet bye and bye,
Where they're waiting to broil in the hottest of Hades.
Bob Koch when he comes from far Germany.

N. B. Accent on the y in last line. Yes we know the meter is bad. 'Tis a halting rhyme. That's on account of the lymph in it. Do you Koch on? There is more of it too, that's almost as good as this. There is really, don't you know. Of course it doesn't look reasonable, but we often sit up all night writing such good stuff as this. We are now writing a passion play and a novel. Don't blush. We have mixed carbolic acid with our ink and burned some salt peter on a shovel in our room. You see we believe in literary antisepsis.

Why is it that the American people cannot be really great and achieve something remarkable in medicine and surgery. Of course the discovery of anæsthesia, ovariotomy, the development of abdominal surgery, and of gynæcology are all well enough in their way, but what bugs have you discovered save the cimex lectularii, pulex irritans and blata orientalis? Where's your lymph? ha! ha! where's your lymph? And echo answers "where?" Rudyard Kipling.

Western Medical Reporter.
A Monthly Epitome of Medical Progress.

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ORIGINAL ARTICLES.

A Review of Varicocele and its Treatment*

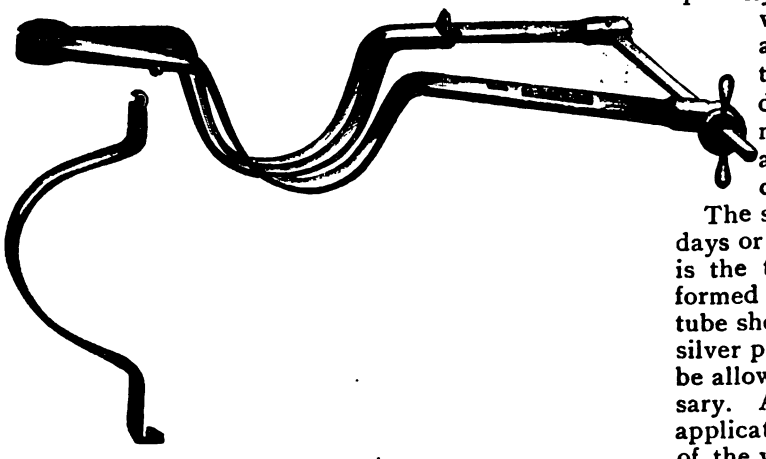
CONTINUED.

BY G. FRANK LYDSTON, M. D.

Professor of the Surgical Diseases of the Genito-Urinary Organs and Venereal Diseases in The Chicago College of Physicians and Surgeons. Fellow of the Chicago Academy of Medicine and of the Southern Surgical and Gynæcological Association.

The point of election having been determined upon, the redundant tissue is quickly cut away along the face of the clamp. Juniperized silk sutures and harelip pins are to be used and may be inserted either before or after the excision, but always before removing the clamp. There should be as little delay as possible, as the prolonged pressure of the clamp produces more or less bruising of the loose scrotal tissues which is not conducive to prompt union. Three or four pins are usually enough; these should be inserted at divided intervals and the silk sutures interposed in sufficient number to prevent gaping and maintain accurrate apposition. Henry covers the heads of the pins with sealing wax and embeds their points in small corks.

FIG. 14.



Horteloup's Scrotal Clamp.

A plan which is perhaps better and one which I occasionally practice is to pass reinforcing sutures of silver wire instead of the pins. A single strand of wire is used and its ends knotted upon small rubber buttons or fixed in split shot. The tension is so extreme that something more than ordinary sutures is required.

The secondary blade of the clamp having been removed the sutures are lightly tied and the main clamp removed. If the sutures be permanently tied before removal of the clamp the surgeon may have to reopen the wound to tie some spouting vessel. Vessels should be twisted where possible, or traversed by a suture. An assistant must now press back the testes else they will pop out in a truly demoralizing fashion. I well remember my first experience in this respect. I wondered where on earth I was going to get skin enough to cover those obstreperous appendages.

All hemorrhage having been checked the wound is permanently closed. Too much care cannot be taken in checking hemorrhage, as there is an especial tendency to venous oozing. The formation of a clot beneath the wound will not only prove a source of septic danger, but will prevent speedy union. There is also the danger of serious hemorrhage of a passive character. To one unfamiliar with operations about these parts the tendency to prolonged oozing is peculiar; I have noted it for several days after a most careful operation for varicocele.

The danger of hemorrhage is in a great measure dependent on the constitutional condition of the patient, as shown in one of my cases.

The occurrence of concealed hemorrhage and formation of clot can be readily avoided by the insertion of a small drainage tube along the line of suture at the lower angle of the wound. I prefer for this purpose decalcified bone, but rubber will, of course, answer the purpose.

Henry uses adhesive plaster as an additional support to the wound, but I have found graduated compresses to be all that is required.

Having closed the wound and made provision for drainage, the parts are irrigated with the bichloride solution, dried, the edges sprinkled with iodoform and a piece of oiled silk or protective laid along the edges to prevent adhesion of the subsequent dressings. A quantity of borated cotton and antiseptic gauze in which a hole has been cut for the penis is now applied and the whole secured by a three-tailed bandage secured at the waist. A light diet should be advised, and no attempt made to move the bowels for four or five days. When a movement does occur the parts should be carefully supported and a bedpan used.

The sutures should not be removed for six or seven days or gaping will quite likely occur. So extreme is the tension when the operation is properly performed that gaping is quite frequent. The drainage tube should be removed in three or four days. The silver pins, or wire sutures, as the case may be, can be allowed to remain for several days longer if necessary. An excellent plan, where gaping occurs, is the application of stout mole-skin plaster on either side of the wound; through the edges of the plaster holes are punched and the two strips laced together with a stout silk or hempen thread, shoe-string fashion. The strips of plaster should extend well out to the thighs. Although a speedy union is desirable as lessening the liability to inflammatory complications and enabling the patient to get about soon, gaping of the wound has some compensatory advantages. The cases which heal by granulation yield a firmer support to the varix from cicatricial contraction and inflammatory thickening. This was well illustrated by one of my cases in which erysipelas occured.

The patient may be allowed to get up in two weeks if no complications arise.

My operations for varicocele now comprise forty

*Read at the Meeting of the Southern Surgical and Gynecological Association, Nov. 11, 1890.

cases of all methods, ten of which have been subcutaneous deligations of the veins, sixteen of simple resection of the scrotum, four of resection of the scrotum with ligation of the veins at several points, one of open deligation with resection of the veins, one of open deligation without resection of veins, and eight of ligation of the veins high up with resection of the scrotum. A recital of these cases in detail would be

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Application of King's Clamp.

FIG. 15.

monotonous, hence I will give only the points of interest developed by their study. I have had no deaths and but few cases in which there was serious reason for alarm. In some few instances, however, there were certain features which caused me considerable uneasiness for a time.

The youngest patient operated on was eighteen and the oldest forty years of age. Most of the patients were between twenty and thirty. The duration of the affection varied, according to the patients' statements, from one to twenty years. The question of duration, however, is not of importance, nor can it be arbitrarily settled in any case. The duration of vericocele is necessarily a relative matter, and implies the period since the condition was first brought to the patient's attention. Obviously the sexual hypochondriac who proverbially seeks for what he does not wish to find, is likely to discover the tumor earlier than one in whom the sexual functions are not a matter of especial concern. Patients with neuralgic manifestations, referable to the cord, testes or penis, are apt to discover their varix at an early period.

The causes of varicocele, as suggested by my cases, is also difficult to outline arbitrarily. Masturbation and sexual excesses are the causes which are usually assigned for varicocele. Often, however, sexual excesses do not appear to be sufficient *per se* to account for varicocele, but no other cause is discoverable. It is certain that only a small percentage of masturbators have varicocele. As, however, nearly all boys masturbate, it is safe to say that about all subjects of varicocele have; hence the *post hoc ergo propter hoc* argument is quite natural. I believe that I am safe in saying the sexual abuse alone never causes varicocele, and that it is an effective cause in direct proportion as it is associated with some constitutional fault involving vaso motor perturbation and laxity of tissue, with especial reference to the venous walls.

As illustrative of the important relation of general vascular atonicity to varicocele, one of my cases already mentioned is certainly striking. This case was under the charge of Dr. S. V. Clevenger, one of our leading neurologists, who was treating him for epilepsy. The doctor observed scrotal hæmidrosis, and referred the patient to me as a curiosity. On examination I found a large varicocele, which the patient claimed was causing him great annoyance by its weight and the consequent dragging upon the cord and back ache. On inquiry I elicited the fact that he was exceedingly hypochondriacal. A peculiar feature of the case was the fact that the seminal emissions, like the sudoriparous secretion of the scrotum, was heavily tinged with blood. Urethrametry revealed several strictures in the penile urethra.

As the epileptic attacks were infrequent and had developed since the acquirement of the strictures—and the patient claimed since the development of the varicocele—it was thought advisable to operate. As I considered the hemorrhagic secretions to be a fair warning of the danger of hemorrhage, I ligated the varix subcutaneously, and at the same time performed a dilating urethrotomy. As I anticipated, a terrific hemorrhage from the urethra resulted. The bleeding continued for three days and necessitated the constant presence of an attendant who applied pressure by an ice bag during that time. There was considerable induration of the veins and a sharp orchitis following the ligature. The result however has been excellent so far. The epileptic attack which was expected at the time of the operation has been postponed for nearly four months. I do not say that this fact is proof of the causal relation of the stricture and the varicocele to the epilepsy. Time may show this however. Like many operations upon the skull for epilepsy, the result in this case may be due to a temporary revulsive effect upon the nervous mechanism which has merely postponed the usual explosion. I will state however that the patient's general health is much better, and that he has markedly increased in weight.

Several of my cases have apparently followed an epididymitis or traumatism. In how far these causes were responsible for the varix in these cases I am unable to say. Very often the only relation between epididymitis or injury and varicocele, is the fact that the latter has been first discovered after these accidents. Personally I think that either of these causes may be operative. I have had one case of varicocele undoubtedly due to athletic strain. All authors I believe, admit the possibility of a kick producing varicocele. In several instances I have had patients with small varioceles who happened to be under observation, whose varices increased after an attack of epididymitis. Anything which will impair the tone of the involved part, or induce circulatory obstruction, should be operative in producing or at least aggravating varicocele.

I have operated on two jockeys each of whom attributed his varicocele to excessive horseback riding, in one case the patient recalled an injury in springing into the saddle. There is no question in my mind as

to the causal influence of excessive horseback riding in producing varicocele. All old cavalrymen will support this opinion. The records of the pension office afford abundant proof. Dr. James A. Lydston who has been connected with the pension bureau for some years, informs me that varicocele is one of the most frequent disabilities presented to the attention of the department, and that it is especially prevalent among those who served in the cavalry. How important the appearance of two jockeys is in this connection I cannot say; it may have been a coincidence, as I am unable to state that the prevalence of varicocele among jockeys is a matter of comment. Other things being equal, they would be less likely than other riders to injure themselves, as they ride on plain saddles, and they cannot therefore experience the disagreeable effects of a blow with a pommel. Jockeys as a class are young, healthy, light weight subjects who are well kept and not subject to vascular debility.

The symptoms for which the patients upon whom I have operated have sought relief have varied. In several instances the principal annoyance complained of was the deformity. One of my patients, for example, was annoyed by the frequent comments which were made upon his appearance, his varicocele being so bulky as to be quite prominent even when his trousers were amply large. There was no other symptom in his case which was of any particular moment.

In several other cases there was noticeable deformity, but associated with it were sexual hypochondriasis and various reflex disturbances. In some instances mechanical discomfort has been chiefly complained of. In several cases intertrigo, and in one instance severe chronic eczema, constituted the chief source of annoyance. Pain in the back, shooting pains along the cord and penis, and neuralgia of the testes have been frequent. In some cases irritability of the bladder has been complained of. In nearly all instances sexual hypochondriasis, with or without spermatorrhœa, has been pronounced. I do not wish to be understood as asserting that all of the symptoms for which the patients sought relief were necessarily dependent upon the varicocele. The nocturnal pollutions, spermatorrhœa and prostatorrhœa, might have been due in many of my cases not to the varix *per se*, but to the same underlying cause as the varix. In several instances the principal symptoms were not removed by the operation.

In but one case have I had sufficient hemorrhage to give rise to any particular annoyance. In this case there was a tendency to hemophilia. This, with my failure to use a drainage tube, resulted in a concealed hemorrhage, the formation of a clot, and after removal of the latter, free passage oozing for some days. In this case there was the most extensive ecchymosis that I have ever seen, the tissues from the umbilicus down to the middle of the thighs being as black as extravasated blood could make them. The result, although alarming in appearance, was not a matter of concern, but the patient became very much frightened at what was apparently, as he expressed it, a general mortification. A tendency to ecchymosis exists in all cases of operation for varicocele, and this should be remembered, else both surgeon and patient are apt to be demoralized by the consequent appearance of the parts. In several other instances there has been a tendency to oozing for some days, thus precluding the possibility of primary union.

The use of the drainage tube is, in my estimation, one of the most valuable points in all operations involving resection of the scrotum. Concealed hemorrhage, tension and sepsis are not liable to occur when the tube is used; there is unquestionably danger of these accidents without it. As long as marked oozing persists the tube should be allowed to remain. Should severe hemorrhage occur after the operation has been completed, the tube facilitates hot water irrigation or the application of styptics, the former being the best hæmostatic.

The healing of the wound in a fair proportion of my cases of resection of the scrotum has been by first intention; but I have found that there is in many cases a tendency to gaping, even though the sutures be allowed to remain for a week or more. Indeed, I am inclined to believe that when there is no tendency to gaping, hardly enough scrotum has been removed. The gaping is always due to the extreme tension upon the parts incident to a thorough operation. It may be prevented in many cases by allowing the sutures to remain in for some little time. If juniperized silk and silver wire be used, as I have suggested, the stitches can be allowed to remain in from five to eight days with impunity.

In several instances I have had slight sloughing of the scrotum, evidently from extreme tension. In these cases, however, the result has been even better than those in which primary union occurred. No matter how much tissue may slough the parts become covered in by an excellent scrotum with almost marvellous rapidity. Although the fit is decidedly snug at first, the testes soon accommodate themselves to their new investment. I have never seen a more delighted patient than one of mine in whom cellulitis occurred as a consequence of infection after operation.

I recall a case of cellulitis of the scrotum, not however following operation, that occurred some years ago in the New York Charity Hospital, in which the testes were bared completely, yet by judicious strapping and occasional stimulation of the granulations a good scrotum was finally secured. I saw several other cases of scrotal cellulitis in the New York State Emigration Hospital during my term of service in that institution. Contrary to the rule in such cases, none of these died. In all there was extensive sloughing of the scrotum, but repair once begun was very rapid. Such cases teach us that in resection of the scrotum there should be little fear of excising too much tissue. The more excised the better the result; and while it is always desirable to obtain primary union where possible, I feel justified in saying that the more gaping, the better the result. Cellulitis, *i. e.* erysipelas, is not a source of danger in resection of the scrotum unless direct infection occurs. This was the explanation in one of my hospital cases which I have already mentioned. The failure of the wound to unite promptly is undoubtedly in some cases of scrotal resection due in a measure to the prolonged pressure of the clamp. Sloughing may be partially explained in this manner. As I have already remarked, my faith in resection of the scrotum as a radical cure for varicocele has been somewhat shaken by several of my cases.

In one instance I have had an opportunity to watch the gentleman for nine years since the opera-

tion, and although I removed all the tissue necessary to an ideal operation in this case, the varix which was a very large one has recurred, and is now nearly as large as ever. The symptoms however for which he sought relief, have not returned. In two other cases there has been a moderate recurrence. The objection may be urged that I have not taken off enough scrotum. My conscience is clear upon this point however, as I have invariable taken off all I could in reason and still retain a covering for the testes.

My operations of subcutaneous deligations have been successful, but on the average have given me more uneasiness and trouble than those in which I performed the open operation. Induration, pain and orchitis are some of the disagreeable features which I have experienced from this method of operation. I have found that the operation of tying the veins low down is much more objectionable from this standpoint than that involving ligation higher up as in the combined operation which I have recommended. It is obviously safer to ligate the veins at their comparatively straight portion, where the changes in the vascular walls are at a minimum, and there is the least necessity for mauling about the investments of the testes and tearing up the planes of areolar tissue. I have already given my reasons for advocating the combined operation. In one of my cases of combined operation, I ligated the vessels at several points rather low down. This patient did fairly well for two weaks, when he arose against orders, or rather overexerted himself when allowed to sit up. As a consequence, phlebitis, cellulitis and consequent slight suppuration developed. During convalescence this patient developed severe *la grippe* with marked pulmonary symptoms, hæmoptysis being profuse, giving me great apprehensions of pyæmia with embolic pneumonia, etc. Although never very strong lunged, this patient perfectly recovered.

In four or five cases stricture existed and urethrotomy was performed simultaneously with the operation for varix. I can see no objection to this procedure, and I have had but one case in which the operation upon the urethra afforded any complication. This instance, already alluded to, was one in which severe urethral hemorrhage resulted.

Two cases have come under my observation which suggested the possible development of hydrocele as a result of operation for varicocele. In one of these cases, operated on by me several years ago by subcutaneous deligation, I again operated on a short time since for an encysted hydrocele upon the same side. In another instance I operated for hydrocele in a case in which subcutaneous deligation had been previously performed for varicocele of the same side by another practitioner. The patient was complaining of the same symptoms, according to his statement, that had characterized the original varicocele. My operation by hydrocele, although perfectly successful *per se*, has not relieved the symptoms from which he was suffering. He is now giving me a great deal of annoyance by his complaints of severe neuralgia of the testicles. The irritation of sunken sutures, which had accidentally traversed the tunica vaginalis, or obstructed venous circulation, plus irritation, might account for these cases. In ligating low down the tunica vaginalis is apt to be quite roughly handled, if not actually traversed by the ligature. Acute hydrocele is a very frequent element in the swelling resulting from ligature of the varix. As already remarked the testis itself may be involved. Injury of the fascial envelopments of the cord high up is not important and is a necessary factor in the operation which I have suggested.

I have never performed an operation for double varicocele. Indeed, I have met with no case which, to my mind, required such operation. Even though a case of double varicocele should apparently require a double operation, I should hesitate to incur the risk of atrophy of both testes. In ordinary single operations the risk of atrophy is doubtless overrated. This is probably due to (1) the relative appearance of shrinkage incidental to the subtraction of the swelling of the varix *per se*. (2) Continuation of atrophy, which was steadily progressing prior to operation. (3) Atrophy due to embolism, syphilis, epididymitis, etc. Theoretical considerations, however, do not always mollify the patient where actual atrophy of the testes occurs. It will be remembered that Delpech was assassinated by a man upon whom he had performed a double deligation for varicocele some years before. On autopsy the murderer's testes were found to be soft and shrunken, presumably from the operation.

I have had no case in which atrophy of the testes has followed an operation, and have had several of scrotal resection, in which the testes became firmer and larger after the operation. Among my cases was one of scrotal hæmatocele, resulting from the injury of a large varicocele. In this case suppuration occurred, and I was obliged to lay the part open; as soon as it was healthily granulating I removed the pendulous scrotum with an excellent result. While I have not been able to follow all of my cases for a great length of time, the immediate results have been eminently satisfactory, and in those cases which I have been able to follow for a period of several years, I have no occasion to regret the operation. In the majority of instances the relief obtained has been so marked that the patients were greatly delighted. That this has always been a physical result of the operation I do not claim, nor do I think that under the circumstances it is a question of great importance.

In general I have found that the combined operation of high ligation of the veins with resection has been much better from the standpoint of economy of time than the subcutaneous or ordinary open operations of ligation. Painful induration and swelling of the testes with consequent disability and impeded locomotion are very frequent in my experience when these operations of deligation have been performed.

In nearly all of my cases, there has been a marked improvement in the patient's mental condition. Hypochondriasis has been relieved and sexual vigor improved or restored. Pain has been relieved in most instances. A notable exception is the case already mentioned, in which hydrocele followed an operation for varicocele and severe pain persisted after cure of the hydrocele.

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Obstetrics and Gynecology.

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An emennagogue which is not an abortifacient is said by Shoemaker, in his new edition of Materia Medica, Therapeutics and Pharmacology, to be found in apiol. It cures congestion of the uterus and ovaries, and favors the occurrence of the menstrual discharge. In cases of scanty or deficient meustruation, with pains, etc., one capsule containing three minims can be given three times a day after meals for a week before the expected period. It is also especially appropriate when the amenorrhœa depends upon ænemia. This author recommends it as follows: Apiolini, minims v.; aloin, gr. 1-10; sulphur sublimatus, gr. v. in each capsule; take one capsule night and morning a week before and during the menstrual period. In *La Bulletin Medicale* we read that apiol has an action on the uterus similar to that of digitalis on the heart. It regulates menstruation, and is useful in all the derangements of menstruation; namely, amenorrhœa, dysmenorrhœa and metorrhagia; provided these disturbances be idiopathic. By curing menstrual disease, a common cause of sterility, it will always cure the sterility. It is also recommended in erosion of the cervix and vulvar eczema. It may be used in powder, glycerine, suppositories, pencils and etherial or collodion solution.

Sulphate of Copper in obstetric practice is described by Tarnier in the Centrall blatt fur Gynekologie, May 8, 1891. In cases where the bichloride of mercury in contraindicated the author thinks sulphate of copper should by all means have the next place. He has found its solution negative in action only against the vibrois. He has been using a five per cent solution in washing out the uterus and vagina after delivery, and is very well satisfied with the result. He has found it ready attainable, soluble, cheap, non-toxic, and unusually active as a disinfectant. Its color is its disadvantage.

Dr. R. Stansbury Sutton, of Pittsburgh, writes that on the 23d of May in his Sanitarium he removed from the fundus of the uterus five months pregnant, a 22-lb. degenerated fibroma. The uterus was opened about an inch in length. A slit up the uterus removed a living child. He then proceeded to remove the uterus by supravaginal amputation. The child died; the patient recovered. Four weeks ago he sent home a lady from whom he had removed an intraligamentous cyst ovarian cyst. She was pregnant three and one-half months. Her pregnancy was not disturbed.

Bright's Disease.*

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The name Bright's disease covers a ground of very varying extent, according to the person who uses it.

In the sense of being the disease described by Dr. Bright (and any one who wishes to understand it cannot do better than begin with his works), it includes the various forms of diffuse or general nephritis, both acute and chronic. Modern writers try to exclude one or another form, and speak of that which they wish to retain, not always agreeing in their choice, as "true" Bright's.

*Va. Med. Mo.

Much confusion has arisen in this way, and it is better to retain the name for application to the whole group or family, and then to particularize, as much as one sees fit, by more definite anatomical terms. But to consider every disease of, or around, the kidneys as "Bright's," is entirely erroneous, as is also the use of the word synonymously with "albuminuria."

I have seen a case reported as "cure of Bright's disease by operation," where an abscess, apparently perinephritic, was successfully treated by incision and drainage. Such a heading might lead an ignorant patient to desire, or an enthusiastic but ill-informed surgeon to perform an entirely futile operation on an unsuitable case.

There have been many attempts made to rearrange Bright's original grouping into others, for it was very evident that he had included either different stages or different forms under one head.

The extreme in one direction is marked by Rayer's seven forms. The present tendency is to fuse them together again.

The classification which seems to me the simplest, and at the same time to bring best into harmony anatomy and clinical observation, is as follows:

Cut off *acute nephritis*, which may begin as glomerular or epithelial, but which, when severe, generally includes both. This is largely of toxic origin, the poison being very frequently that of scarlatina, sometimes of diphtheria and other infectious diseases, irritant drugs like cantharides and turpentine, and sometimes more obscure, as in exposure to cold and wet, causing acute dropsy.

At the other end, cut off the *amyloid* or *waxy degeneration*, which is only a part of a general disease, and in fact rarely occurs as the sole lesion even of the kidney. It is not probable that a patient ever dies of amyloid renal disease, pure and simple.

The remaining cases may be arranged in a series. At one end, we have *parenchymatous nephritis*, with degeneration of the epithelium of the renal tubes. This form is the more nearly allied to the acute.

The kidney is at first the "large white," but at a later stage may atrophy and become withered and cirrhosed, closely resembling that which results from another process. For convenience we may call it the "small white."

Parenchymatous nephritis of the acute kind is allied to acute "fatty degeneration," and the name which one would apply to a phosphorus or arsenic kidney, for instance, would depend upon his views as to the nature and scope of the inflammatory process. A certain amount of fatty degeneration is hardly pathological in some animals—pigs, for instance.

At the other end of the series we have *interstitial nephritis*, beginning in the stroma or interstitial tissue, but involving blood vessels, and finally epithelium, and going on to atrophy. This final stage is the "small red," "contracted," "cirrhotic," "gouty" kidney. In the earliest stages, the kidney is not smaller than normal, but has an increased deposit of new connective tissue which, later, contracts like that of a cicatrix or a cirrhotic liver. The corticál substance is atrophied, and cysts are very frequently developed from closure of the tubes.

We often meet with nearly pure cases of both forms —pure, that is, as regards their origin and early development; but we also have them mixed in all proportions, and complicated by acute processes and the amyloid degeneration.

Both of these forms may have a local origin—the first in toxic influences of substances passing through the kidney, or having a degenerating effect upon its cells. The list is not exactly the same as for the acute form, however; as we must take out the infectious diseases and insert alcohol. Exposure to wet and cold is among the most fruitful causes.

A morbid form of the blood albumen has been regarded as the earliest change in this disease, "(heter-albumin)" but this is very far from being satisfactorily proven.

Interstitial nephritis may also be a secondary result from local mechanical irritation, as from a large renal calculus, in hydronephrosis, or from the backing up of urine from obstruction of the lower passages.

These cases are, to be sure, not "Bright's" at all, in the narrowest sense, but the pathological changes in the secreting structure of the kidney are similar or identical. The poisons of lead and of gout give rise to this form, probably by their action on the arteries as well as on the kidneys.

The etiology, however, in many cases, is very obscure. Cases of well marked and uncomplicated interstitial nephritis have been, in the experience of the writer, especially frequent among the class of hard-working, driving, anxious business men, not of bad habits in the ordinary use of that phrase, but men who paid little attention to their health—men whose system was in a continuous condition of strain, so that one might almost use the word "tension" literally, and suppose it transferred from the mind to the arteries.

There is a species of renal atrophy in the aged which does not necessarily lead to serious results, inasmuch as it progresses so slowly that it only keeps pace with the diminished demands made upon the organs by the enfeebled nutrition of old age.

The most important fact, however, and that which makes it most desirable to draw the distinguishing line between the two forms—not for the first time in the dead-room, but at the bedside—is that interstitial nephritis, except as a result of some local mechanical irritant—*i. e.*, in the vast majority of cases—is a part of a general disease, involving the arteries more or less extensively over the body, and frequently producing hypertrophy of the heart.

The nature of the connection between nephritis and hypertrophy of the heart (the fact itself having been noted and commented on by Bright) is obscure, and has been the subject of much study, clinical and experimental, but without thoroughly satisfactory results.

In the great majority of cases where the two conditions co-exist, there is disease (atheroma) not only of the small, but of the large arteries. Disease of the smaller arteries (arterio-capillary fibrosis) has been supposed to be the connecting link by its resistance to the passage of the blood, consequent rise of blood pressure in the main arteries, and development of the heart muscle in the endeavor to overcome the increased resistance. This permanent increase of tension is perceptible to the educated finger, and demonstrable by the sphygmograph. It is, however, a great mistake to suppose

that all cases with a relatively high tension—*i. e.*, slow escape of the blood through the smaller arteries —are on their way to, or have reached Bright's disease.

In some cases the hypertrophy of the heart succeeds an interstitial nephritis of purely local origin. (See Philadelphia *Medical News*, August 10th, 1889.) But whatever the connection, the fact that severe symptoms on the part of the arterial, respiratory and nervous systems may be prominent in a case which either at the time includes, or later develops an interstitial nephritis, long before the strictly renal symptoms become manifest, is a highly important one. So important has it seemed to some, that the late Dr. Mahoned, who did much excellent work in this direction, used to speak of "deaths from Bright's disease without nephritis"—a very questionable piece of momenclature, but a phrase which serves to emphasize clinical facts of the highest significance.

Typical cases of either form of chronic nephritis are to be distinguished clinically as well as anatomically; but there are some which unite more or less of the symptoms as well as the lesions of the two affections. It would be strange were it otherwise. It could hardly be expected that changes in the secretory surface could continue for months or years without producing irritation and inflammation in the subjacent connective tissue; and, on the other hand, it is manifestly impossible for hypertrophy of the connective stroma, followed by its shrinking, to take place without gradual destruction of the parenchymatous portion of the organ. The first process is paralleled by the thickening of mucous membranes in chronic catarrh of the respiratory passages, fibroid phthisis, etc., and the second in the atrophy of the cirrhotic liver.

Chronic Bright's disease is not often a sequel of the acute.

The diagnosis of advanced cases is extremely easy. A large amount of albumen, large numbers of casts —ephithelial, granular, fatty and waxy—are conclusive as to the existence of parenchymatous nephritis, either primarily of this character, or as a late stage of the cirrhotic form. They are usually coincident with dropsy, either as general or partial anasarca, hydrothorax, or the most dangerous complication of all, œdema of the lung. Nervous symptoms—headache, vomiting, convulsions and coma—may occur in either form.

The early diagnosis, on the other hand, is often beset with difficulties, especially in interstitial nephritis.

Albumen may be present in small quantities, as it may also in other diseases, and under certain circumstances in apparent health. The same is true of a very few, small transparent casts.

These conditions may be found in some cases of local irritation from a highly concentrated acid urine, as in the uric acid diathesis or in jaundice, without indicating any decided or permanent nephritis.

The old fashioned *tests for albumen*, if *carefully used* are practically the best; *i. e.*, boiling the acidulated and if necessary, filtered urine, comparing it with an unboiled specimen, allowing it to stand and cool, and inspecting the precipitate; and nitric acid, by the overlying or underlying method—not by mixing.

Quantities of albumen detectable by these methods are not to be neglected, especially in persons beyond their youth. They may occur without other symtoms, but their presence should be a signal for further investigation.

There are tests which will show the presence of a trace of albumen in a majority, often a large majority of healthy adults under certain circumstances (cold, severe, and long continued exercise, mental strain, full meal, etc.) But there is no object in using a test which can teach the physician nothing, and can only frighten the patient.

It is said that albumen and casts are frequently absent in Bright's disease. It is the belief of the writer that this source of error is much less important, when care is used, than has been represented.

The *quantity of urine* is of the highest importance. It should be measured and not estimated. A constant increase, say to two and a half or three liters, in the quantity of light colored urine of low specific gravity, is very suspicious, and may be diagnostic.

Frequent micturition at night is also suspicious; but taken by itself, proves nothing. Scanty, high-colored urine should excite suspicion, but may be caused by so many different conditions—notably fever, and passive congestion of the kidneys—that, by itself, it has little meaning.

A diminution in the quantity of the urea excreted in the twenty-four hours, has been claimed as an early sign of Bright's.

In many cases the urine is, as has been stated, increased rather than diminished. Urea is an extremely diffusible substance passing out with great ease, and the kidneys in such cases are abundantly able to take care of all the urea formed. Hence a diminution of urea excreted means a diminution of urea formed; and its formation is not the special work of the kidneys, but of the entire organism—very largely of the liver. It is in some cases of liver disease that the excretion of urea has touched its lowest mark. So that a diminished amount of urea in the urine, careful attention being paid at the same time to the amount of nitrogenous ingesta, may mean general ill health, but not any obstacle to secretion. By the time sufficient inroads have been made upon the structure of the kidneys to prevent their carrying off all the urea, the diagnosis will have been made long before on other grounds.

The *condition of the heart and arteries* is of great significance.

An hypertrophied heart, with hard, tense, prolonged pulse, is exceedingly likely to to be connected with interstitial nephritis. It may precede more decisive symptoms.

A cerebral hæmorrhage, especially a large one in a person of middle age or below, is likely to be connected with the symptoms just mentioned, and consequently, with interstitial nephritis.

Severe and persistant headaches, without symptoms of localized cerebral disease, and severe and persistent vomiting without organic disease of the stomach, should excite suspicion and lead to careful, and, if necessary, repeated examinations of the urine.

Failure of vision is not infrequently the first symptom which leads a patient to seek medical advice. The ophthalmologist finds a peculiar neuro-retinitis; and examination reveals albumen and casts. Sudden blindness (amaurosis) may be the immediate precursor of uræmic convulsions.

Pain in the back has no value whatever in the

diagnosis of chronic Bright's. It may, and is likely to be present in pyelo-nephritis and in acute Bright's.

QUESTIONS OF DIAGNOSIS WHICH MAY ARISE.

Which form of Bright's is this, or which is the controlling lesion?

Urine in	Parenchymatous Nephritis.	Interstitial Nephritis.
Quantity,	Diminished.	Increased.
Sp. Gravity,	Increased or normal.	Diminished (1005 to 1010).
Color,	High, or dirty greenish yellow.	Pale yellow, clear.
Casts,	Abundant, fatty, degenerated.	Few, hyaline, or (later) degenerated.
Dropsy,	Usually much.	Slight, or (later) abundant.
Dyspnœa,	From hydrothorax or œdema of lung.	From œdema of lung or nervous. (Cheyne. Stokes.)
Heart,	May be somewhat hypertrophied.	Much hypertrophied.
Impulse,	Weak or normal.	Increased, heaving.
Pulse	Feeble or natural.	Hard, firm, incompressible.
Sounds,	Weak or normal.	Ringing. Bruit de galop.
Nervous Symptoms,	Coma, convulsions, amaurosis, headache.	Headache, hemiplegia convulsions, coma.
Neuro-retinitis,	Rare.	Common.

In a case with enlarged and strongly-acting heart, with œdema, and the urine containing casts and albumen, is it Bright's with hypertrophy, or valvular disease with congestion of kidneys?

	Valvular Disease.	Parenchymatous Nephritis.	Interstitial Nephritis.
Urine,	Scanty.	Scanty.	Abundant.
Color,	High.	Not so high.	Pale.
Deposit,	Urates.	Many epithelial and fatty casts.	Slight, few hyaline casts.
Albumen,	Small amount.	Much.	Small amount.
Heart,	Souffles, etc.	No souffles.	No souffle, bruit de galop.
Arteries,	Low tension, irregular pulse, etc.	Low tension.	High tension.

Diagnosis of a case of severe frequent headaches, abundant urine, little albumen, few or no casts for a time.

	Organic Disease of Brain.	Sick Headache.	Bright's Disease.
Pain,	Localized.	Not so closely localized.	Not so closely localized.
Paralyses,	Localized, eye muscles.	None.	None, unless sudden hemiplegia.
Urine,	Constantly profuse.	Normal in intervals.	Constantly profuse
History,	Syphilis? tubercle? injury?	Previous nervous affections.	Gradual deterioration of health.
Eye-ground,	Double optic neuritis, optic atrophy.	Normal.	Albuminuric neuro-retinitis.

In a case with rapid œdema, scanty urine, albumen and casts, is it an acute case of Bright's disease, or an exacerbation of an essentially chronic case?

	Chronic, with Exacerbation.	Acute Nephritis.
Urinary sediment,	Waxy casts; very large dark casts of epithelium.	Hyaline and epithelial casts, blood corpuscles.
Heart,	Hypertrophied (if case is of interstitial nephritis).	Normal.
History,	Headaches, vomiting, slight dropsy, palpitation, gradual anæmia.	Health previously good

Abundant pale urine, small amount of albumen and casts, small amount of pus? Is it hydro-nephrosis from obstruction, or Bright's disease with slight inflammation of the urinary passages? Or, in other words, is the secretory substance of the kidneys primarily and seriously affected, or only secondarily to some local inflammatory lesion?

	Hydro-Nephrosis, etc.	Bright's with Slight Cystitis, etc.
Urine,	Does not settle clear; remains opalescent (*polyuric trouble*).	Settles clear, with small deposit of pus.
Deposit,	Pelvic epithelium, pus.	Hyaline casts, pus.
Heart,	Feeble.	Hypertrophied.
Surgical examination,	Enlargement of prostate, etc.	Negative.

A man, possibly insurable, has a small amount of albumen (detectable by the ordinary tests). Shall he be insured?

Never on the strength of a single examination.

	Yes.	No.
Age,	Adolescent.	Past middle age.
Time of occurrence,	After special exposure or with regular intermissions.	Constant. (There are exceptions to this.)
Casts,	*Very few* hyaline at times.	Constant and abundant.
Arteries,	Moderate tension, elastic.	High tension, atheromatous.
General appearance,	Blooming, healthy.	Pale, sodden.

The prognosis of acute nephritis is in a general way favorable. It is, like other acute inflammations, self-limited, tending to recovery, seldom running into the chronic form. Severe cases may terminate fatally by œdema of the lungs, or more frequently by uræmia.

In well-developed interstitial nephritis the prognosis, as regards ultimate recovery, is as nearly hopeless as anything can be. It is, however, exceedingly chronic. After it is well recognized, a man may go on attending to his business for some years, and after that live some years as an invalid. More frequently, however, it is not diagnosticated until toward the end, the patient for a long time complaining only of general ill health, and seeking medical advice only when the most pronounced symptoms make their appearance.

Well-marked chronic parenchymatous nephritis has almost as unfavorable an outlook as regards ultimate recovery, and perhaps more so as regards the duration of life.

It must be remembered, however, that there are cases *somewhat subacute* in their character, where the tendency to unfavorable progress may be checked, and which admit of complete or nearly complete recovery.

In parenchymatous nephritis, we often meet with many alternations of better and worse. Where the patient's circumstances permit, advantage may be taken of care and climate to prevent the recrudescence. With hospital patients, however, a discharge from the hospital, after great improvement or cessation of the symptoms under treatment, is apt to be the starting point, sooner or later, of a new exacerbation.

A large part of the alleged cures of chronic Bright's disease are either instances of absolutely wrong diagnosis, of nonrecognition of acute or subacute cases, or of mistaking temporary improvement for a cure.

Uræmia.—The toxic properties of the urine do not reside exclusively or even chiefly in the urea or products of its decomposition. Urea in the blood, except

in an exceedingly large percentage, such as has seldom been observed, is nearly harmless, and is moreover so diffusible that it is easily gotten rid of, so long as water is flowing through the kidneys. The saline constituents contribute largely to its toxicity.

It is highly probable that other less known substances—possibly, but not necessarily, ptomaines—are the most important of all. It is possible that these substances may accumulate in the blood more easily than the urea, salts, etc.; so that there may be a failure of their elimination at a period of the disease when the urine is sufficiently abundant, and contains a sufficient percentage of solids to account for all that are known to be formed. It is also possible that they may be formed more largely or even exclusively in Bright's disease. This speculation is based upon the fact that uro-toxic phenomena appear in Bright's disease more rapidly and after a much less complete interference with elimination than takes place in some cases of mechanical suppression. In these latter cases (obstruction of ureters by stones, or valves, or removal of an only kidney), where the suppression may be absolute, the symptoms are delayed many days, and are not usually of so violent a character (convulsions).

It would appear that the excrementitious material formed and retained in Bright's disease is of a more poisonous character than that retained when the processes of health are suddenly interrupted.

Many of the symptoms usually designated uræmic are not uro-toxic at all, but are dependent on anæmia, hydræmia, and especially on the affections of the heart and vessels going on in Bright's disease.

The theory of Traube, that uræmia was due to œdema of the brain, is now abandoned as an exclusive one, though it may apply in some cases, and especially where well marked local paralyses, evidently due to a focal lesion, recover with too great rapidity to be due to a hæmorrhage or an embolism, or, on the other hand, are found after death not to have been so caused.

Neuralgia, and other disturbances of sensation, and sometimes vomiting, may be purely neurotic. "Dead fingers," many cases of headache, dyspnœa, insomnia, dimness of vision, and polyuria, are symptoms depending either upon derangement of the proper innervation of the vessels (angioneurotic), or their degeneration (angionotheutic).

Some other cases of headache, often vomiting, dyspnœa (especially Cheyne-Stokes), delirium, muscular twitchings, convulsions, amaurosis, and coma, are truly uro-toxic.

Most puerperal convulsions are uro-toxic from a subacute parenchymatous nephritis. In some, however, the anæmic and angioneurotic factors are of importance, and, in a few, the convulsions are really epileptic in character as well as in appearance, are provoked by the presence of pregnancy and parturition, and have nothing to do with renal disease.

THERAPEUTICS.—In *acute nephritis*, the tendency is to ultimate recovery; hence the therapeutic indications are to relieve symptoms until this can take place. Elimination may be promoted either cautiously through the kidneys themselves by the use of mild and non-irritating diuretics, of which the chiefest is water—distilled, indifferent, or mildly alkaline spring water. Irritating diuretics are sedulously to be avoided; and, if the amount of œdema is great, the amount of fluid ingested should be kept small. The fluid which is taken may well be the bearer of nutriment; hence a milk diet.

Elimination by the bowels is rapid and certain.

The skin is the organ chiefly sought to be stimulated. The two principal means are pilocarpine and the hot-air bath. Of these, the latter is less convenient but also less depressing. Pilocarpine, after an effectual dose or two, rapidly loses its effect. On the other hand, it has the great advantage of acting quickly and demanding no apparatus, or moving of the patient. It should be used with great caution if a patient is unconscious, on account of danger of suffocation from accumulated saliva which the patient is unable to get rid of.

Convulsions may be controlled by chloroform, ether, or chloral. In puerperal convulsions, in addition, resort to rapid delivery, and sometimes to bleeding. Morphia may be used with advantage subcutaneously. The writer has never ventured on the enormous doses recommended by some writers. Local abstraction of blood or counter irritation over the loins is useful.

In the chronic forms, we have first to consider the progressive tendency to destruction of the kidney, either by primary degeneration of the epithelium or by its destruction under the contracting interstitial substance. In the first place, there should be avoidance of all the causes which would provoke the diseases—exposure to cold and wet being among the most important dangers; flannel should be worn; overwork, bodily and mental, given up. A climate free from both coldness and dampness should be sought if possible. As it seems highly probable, from many researches on the subject, that some of the symptoms are due, not to the simpler and more familiar products of nitrogenous decomposition, such as urea, but to the more complicated ones with which we are becoming acquainted, as ptomaines and toxic albumens, it is desirable that the nitrogenous foods should be presented in a form least likely to undergo abnormal changes. Hence, a heavy meat diet is not desirable. The amount of actual loss of albumen is, in most cases, not great, and it is not necessary to push animal food with a view to making up the deficiency. The vegetable proteids are capable of fully maintaining the nitrogenous equilibrium. More than this, it is not only not necessary, but throws increased and entirely avoidable labor on the kidneys, either as albumen or as excess of urea and uric acid.

The amount of meat should be regulated with reference to anæmia, and also to the digestion of the particular patient in question, but should never be excessive.

Milk is an excellent food and, in some cases, an exclusive, or almost exclusive milk diet can be employed, for a time with great advantage. Of course it cannot be prolonged indefinitely without additions and modification.

Tonics, especially iron, may be used. The preference is sometimes given to some of the ether-containing preparations, like the tincture of the chloride; but if any other form is more easily borne, the ether (say spirits of nitrous ether) can be added if necessary.

Water is of great importance. The value of a great number of spring waters, which have a reputation in such cases, depends mostly on the ingredient of which least is said—*i. e.*, on the water itself, and not on the trivial amount of sulphate of soda, carbonate of lime,

or infinitesimal trace of lithia dissolved in it. If there is a tendency to excess of uric acid, an alkaline water should be selected.

In *intersiltial nephritis*—the cirrhotic kidney—we have to consider not merely the state of the kidney, but the condition of the circulation which so frequently accompanies and precedes it.

A great deal of use has been made of the nitrites, especially nitro-glycerine, with a view to diminishing the arterial tension. It is very doubtful whether the slight and temporary diminution produced by the doses usually given could be expected to be of great value. Certainly the results have not seemed to give decisive proof of it.

The alterative metals—mercury, silver, and gold—have been used.

Bright was certainly right in warning against mercury. The constitutional action of this drug is exceedingly inimical to the renal epithelium. This need not prevent the administration of calomel as a cathartic if considered specially desirable.

Gold appears to the writer to be as futile in controlling the formation and contraction of new interstitial tissue in the kidneys as its sister, silver has been found in similar conditions of the nervous centers.

Among the complications we find chiefly the symptoms which have already been spoken of under the head of acute nephritis. Œdema, however, being of longer duration and often more extreme, is likely to call for more decided treatment. This may be of the eliminative kind, remembering however that in this case it is water, and not especially the urinary solids, we wish to carry off. Hence, drugs requiring the ingestion of much water should be discarded for those that may be given in small bulk, like the resinous cathartics.

Rest in bed often diminishes the œdema, but is much more likely simply to change its location. Mechanical relief, by tapping the great cavities, as in hydrothorax and as ascites, or the subcutaneous cellular tissue, is often called for. Punctures and incisions, if made with clean instruments, are not to be dreaded as causing local inflammation. They often drain for hours or days with advantage.

Œdema of the lungs demands similar but prompt treatment, together with stimulation of the heart. The writer considers that, under these circumstances, the diffusible stimulants, alcohol, ether and ammonia, are of more value than digitalis. Some physicians consider musk and castoreum as valuable stimulants to the flabby and dilated heart. Bleeding may be useful, especially in terminal uræmia.

A word may be added as to the *use of morphine in the headaches* of interstitial nephritis. It is said by some persons that morphine should be given with great caution if there is any albumen in the urine; and the writer cordially subscribes to this sentiment, and is willing to add that it should never be given to anybody under any circumstances (except perfect familiarity with the patient and his idiosyncrasies) without great caution. This caution, however, should not be so great as to deprive such patients of the great relief which may be obtained by quite a small dose subcutaneously for the relief of intense headache. There are few circumstances under which it displays its powers more favorably than in these. Its use in convulsions was before spoken of.

Caffeine is often extremely useful,

Notes.

Quills as Drainage Tubes.—Quills as drainage tubes have been suggested by Dr. Beach, of Massachusetts, and they have been used by him for the past two years for this purpose. The goose quills are those which are used for the finer grades of camel's hair brushes. The quills are taken without cutting off the dermal end, and perforated at intervals with an ordinary round leather punch. A delicate and smooth-pointed tube is thus provided, presenting the maximum lumen and minimum thickness of wall. The tube is made from a natural dermal appendage and is absolutely unirritating. It can readily be cut with scissors, and is not fragile like glass. It does not undergo any of the irritating chemical changes which are frequently seen where rubber tubes have remained for any length of time. The tubes are preserved in a sublimate or carbolic solution, and are easily sterilized.—*Medical Press and Circular.*

Dangers of Sulphonal.—Although sulphonal is probably one of the most efficacious among the hypnotics recently introduced, the series of cases published by Bresslauer, of Vienna, show clearly that it has serious dangers. The degree of peril is difficult to estimate, as the patients were lunatics, and were also apparently feeble, but the fact is significant that out of seventy-seven patients who were treated with the drug no less than seven showed serious symptoms, and in five of them there was a fatal termination. It ought to be mentioned that the patients had been taking the drug for a considerable time in good doses, and had borne it well until symptoms of disturbance set in, these being: Great constipation, dark-brown urine, slow or in some cases rapid but feeble pulse, discolored patches resembling purpura on the limbs, and great prostration. In the cases which ended fatally, the cause of death was heart-failure, with œdema of the lungs.—*Boston Med. and Surg. Jour.*

Mydriatics After Cataract Operations.—A well-known Mexican oculist believes that the use of mydriatics after cateract operations tends to favor the formation of secondary cataracts. This action of eserine suggested the idea of employing it to prevent hernia of the iris after a cataract operation. He believes that if the work is well done, the corneal incision well cleaned, and the lips of the wound nicely adapted, that the instillation of eserine is useless, but if the patient should vomit, then eserine is useful, and he sometimes uses it.

The change after operation causes an exaggerated contradiction of the pupilary sphincter, and greatly favors the adhesions of the iris with capsulary fragments and exudative deposits that may form afterward. For these reasons he has abandoned the use of mydriatics after cateract operations, except in cases in which they are especially indicated.

When capsular cataract forms, notwithstanding the perfectness of the operation, he believes that it is best treated by simple dicission, as is practiced by Galezowski. The operation is simple, easy, and nearly always gives excellent results.—*Memphis Medical Journal.*

Proceedings of Societies.

American Medical Association.

By E. S. McKee, M. D., Cincinnati.

Can the gynecologist aid the alienist in institutions for the insane? was the subject discussed with great vigor by Dr. I. S. Stone, of Washington, at the meeting of the American Medical Association. The doctor had systematically investigated the present status of medical practice in the institutions for the insane in many of the States. His investigations opened up the fact that the superintendents of asylums, with a few creditable exceptions, felt themselves competent to treat all phases of diseases of woman, or in fact to be full-fledged specialists in all departments, and were not at all gracious to outsiders, especially gynecologists who might endeavor to offer aid. To his inquiry, "Can the gynecologist aid the alienist in institutions for the insane?" he received largely negative replies. He drew the inference that asylum superintendents thought gynecologists meddlesome and bungling men who did more harm than good. So far as he was able to determine, female diseases were seldom recognized, much less treated, by these superintendents, and he propounded the query, "Why is it that insane women apparently do not have the same diseases that afflict so many sane members of their sex?" The doctor urged, in closing, that the fullest details be obtained, that we may know the real relation between diseases of the female pelvic organs and insanity.

Dr. Byron Stanton, of Cincinnati, said that when a man became an asylum superintendent he ceased to be a competent doctor.

Dr. Joseph Eastman, of Indianapolis, reported a case where a woman was incarcerated in an asylum for a year, and discharged hopelessly insane, and then cured by an operation at his hands. This, too, when the possibility of female trouble had been suggested before she entered the asylum, and frequently during her stay there. The superintendent would have it that was nothing but a neurosis, and that she was incurable. The extent of her cure may be known by the fact that she now occupies the position that she held before her insanity, viz: lady superintendent of schools. The operation performed in this case was the removal of the appendages, and was necessitated by finding, on exploratory incision, that one of the Fallopian tubes was bent sharply on itself, and bound down tightly by a peritonitic adhesion. In operation on patients insane from self-abuse, he had been completely successful in one case and partially so in another.

Dr. J. H. McIntyre, of St. Louis, added his testimony to that of Dr. Stone.

Dr. Edwin Walker, of Evansville, Ind., thought a very large number of our cases were neuroses, and thought some of them were doubtless due to gynecological troubles.

Dr. C. A. L. Reed, of Cincinnati, who has written a brochure on this subject, called Dr. W. W. Potter, of Buffalo, to the chair, and said that he had given this subject serious attention for a number of years. He was satisfied of the sound scientific basis for reform which would involve the appointment not only of gynecologists, but of specialists in all of the departments as staff officers to asylums. The facts unearthed by Dr. Stone that the alienists did not want the assistance of any one else in the care of the insane, revealed an alarming state of affairs. The claim that the medical superintendent, who is generally a housekeeper, a gardener, a jailor, and who at the same time was competent to treat diseases of the eye and the ear, of the lungs, pelvis and every other special organ, was preposterous. The claim is made, however, by these gentleman, and is a clear demonstration of their pretentiousness. The doctor challenged any superintendent of this class to an experiment, the result of which would be as interesting to science as startling to humanity. He challenged them to submit their patients to an examination of specialists representing the different branches of medicine, merely for the question of diagnosis. He staked his reputation for truth and veracity that the examination would reveal curable diseases, in many instances the cause of the insanity, the existence of the former never having been suspected by the alleged medical collossus who is known as the superintendent. The evil, he asserted, was not a scientific one. It had passed beyond that point. It is now a problem in political economy, nothing more nor less than the eradication of the self-perpetuating scheme of superintendency, which is as pernicious as was ever priestcraft in its worst state.

Obstetric forceps was the subject of a discussion of considerable interest at the Washington meeting of the American Medical Association.

Dr. Chas. P. Noble, Philadelphia: I consider the subject of axis traction forceps a most important one and am only glad it has been brought before this body. The general merit of such forceps is, that force is not wasted by dragging the head against the bony pelvis, especially the pubes. In my judgment an even more important end is secured by Tarnier's forceps and the forceps of Dr. Neil, viz: that because of the nature of the joints in the tractor, the head is left free to flex or extend or to rotate, in other words, to undergo those movements of accommodation which it undergoes in normal labor. In this way the most favorable diameters of the head present from time to time. I repeat that though axis traction is a great gain, the freedom of motion permitted to the head when grasped by the axis traction forceps as contrasted with its fixed relation when grasped by the classic forceps, whether the relations of cephalic to pelvic diameters be favorable or not, is an even greater gain. Unfortunately this advantage is not possessed by the forceps of Dr. McGillicuddy; which, moreover, clearly resemble that of Hubert, long since abandoned. It is to be regretted that the axis traction forceps modeled after Tarnier are not used more generally when the head is high in the pelvis, as the force applied is practically all available in delivering the head, there is a triple gain. The tissues of the mother are not bruised by dragging the head against the symphysis and arch of the pubes; the head of the child escapes powerful and long compression and the obstetrician is enabled to effect delivery with ease, in cases in which the classic forceps long continued and exceedingly tiresome traction efforts would be necessary.

Dr. Augustus P. Clarke, Cambridge, Mass., said: Following the early teachings of my illustrious teacher, Sir James Y. Simpson, of Edinburgh, I formerly employed version whenever a choice was to be made between that method and the use of forceps. Within a recent period great advances have been made in the practice of gynecology and also in that of obstetries, This had led to great improvements in the construction of instruments and particularly in the

construction of those employed in midwifery. We have forceps of easy axis-traction, of many different curves, and in length, sufficient when needed for almost any case, whether the head or other presenting part be at or above the brim of the pelvis. Reference to the statistics of the cases occurring in my own obstetric practice for the past twenty-five years or more, justifies the statement that there is a marked per cent in favor of the use of the long forceps in high operations as regards the safety both of the mother and child. Speaking in reference to Sir James Y. Simpson's predilection for the employment of version in cases requiring operative interference I would say that I am satisfied that the forceps which he had been able to obtain were not of a length and curve sufficient to afford a reasonable degree of safety to the maternal and fœtal structures.

A remarkable, neat, concise and valuable addition to the literature of electricity in the diseases of women is the little book of which the second edition has but recently appeared, written by that careful, painstaking ardent student, Dr. G. Betton Massey, of Philadelphia. In reading Dr. Massey's book the student or practitioner learns something. He is not confused by endless compilations of words. While the author has availed himself of the wisdom Apostoli, A. Lapthorn Smith, and Engleman, he has taken nothing on hearsay and gives evidence of having proven all which he recommends. Four chapters are entirely rewritten.

Ohio State Medical Society.

Three cases showing unusual difficulty of diagnosing abdominal tumors were reported by Dr. T. A. Reamy, of Cincinnati, to the Ohio State Medical Society. The cases were of very great interest, and were selected from a large number on which the Doctor had recently operated, which showed the great difficulty of accurately diagnosing abdominal tumors. He thought an injustice was frequently done doctors who were previously in charge of cases operated on, the operator not finding the conditions present said to exist by the former physician in charge. These conditions are not always easy to determine accurately, and then, too, they sometimes change with changing years.

The Operative Treatment of Uterine Cancer was the subject of a paper by Dr. D. Todd Cilliam, Columbus. He considers the two operations total extirpation and high amputation, favoring the latter.

Salpingitis with report of two cases was the title of a paper by Dr. A. B. Walker, of Canton. Two cases were reported. Operations were strictly aseptic, and no chemicals were used in the abdomen. He believes that the early treatment of endometritis would in may cases prevent the formation of salpingitis. Gonorrhœa in women becomes a matter of considerable importance in view of its sequences.

Dr. Edwin Rickets discussed the paper.

The periods of gestation are the same in the horse and ass, 11 months each; camel, 12 months; elephant, 2 years; lion, 5 months; buffalo, 12 months; cow, 9 months; sheep, 5 months; reindeer, 8 months; monkey, 7 months; bear, 6 months; sow, 4 months; dog, 9 weeks; cat, 8 weeks; rabbit, 4 weeks; guinea pig, 4 weeks; wolf, 90 to 95 days. Goose sets 30 days; swans, 42 days, hens, 21 days; ducks, 28 days; pea hens and turkeys, 28 days; canaries, 14 days; pigeons, 14 days; parrots, 40 days.

Western Medical Reporter.

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WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

ST. LOUIS, MO., August 14, 1891.

To the Readers of THE WESTERN MEDICAL REPORTER:

The Mississippi Valley Medical Association will hold its seventeenth annual session at the Pickwick Theater, Washington and Jefferson Aves., St. Louis, October 14, 15 and 16. A full programme of interesting papers has been prepared, and provision has been made for the fullest, freest and most complete discussion of the same. Representative men from various sections of the country have been invited to open the discussions. The local profession of St. Louis is a unit to the end that every visiting physician shall be received and welcomed in a regular warm-hearted St. Louis style.

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I. N. LOVE,
Chairman Committee Arrangements.

ABSTRACTS.

Dermatology.

ATROPHIA CUTIS.—Kent O. Foltz, M. D. The *Am. Med. Journal.*—A young lady, sixteen years of age, presented herself for treatment and stated that at the age of six she fell among blackberry bushes, scratching her face considerably. The wounds healed without trouble, but almost immediately the skin commenced to fall in pits, the disease spreading slowly and being confined to entire right cheek, considerably of the forehead, a spot about an inch large on left cheek, right side of neck, right mammary gland, and a line half an inch wide extending from the neck to the axilla of the same side. Some of these pits were large enough to hold a good size pea. Comedos were plentiful, and by passing the finger over the affected surface, hypertrophied sebaceous glands could be plainly felt.

After brushing the surface of skin with ether, as many of the comedos as could be easily accomplished, were extracted; the contents of the hypertrophied sebaceous glands evacuated by making incisions into them and an ointment applied at night. This treatment has been kept up for nearly two years, with great improvement in the appearance of the face and neck which has become so much smoother, that unless within two or three feet of the young lady, the disfigurement cannot be noticed.

Gynæcology.

TUBERCULAR PERITONITIS, WITH CIRCUMSCRIBED EFFUSION, CAPPED BY A DISPLACED AND ENLARGED SPLEEN. D. Tod Gilliam, M. D. *N. Y. Med. Jour.*—Being consulted by a woman 18 years of age for womb trouble and rapidly increasing debility, found hectic fever, no appetite, sense of great prostration, abdominal pains, with pulse of 120. There was a degree of dyspnœa out of proportion to other symptoms, and upon examination found miliary infiltration of both lungs. The abdomen was distended and hard, pelvic organs depressed, and uterus evidently crowded down from above. There was a tumor distinctly defined, extending from the pelvis to umbilicus, and to the hand giving an impression of solidity, but there was evidently fluid beneath the solid, for a wave impulse could be recognized, though indistinctly. Percussion of the liver showed it to be in position and in no way connected with the tumor, and there was a hand's breadth between the region of the spleen and the tumor.

As each day the condition of the girl became more and more alarming, an operation was decided on and performed on second day after examination. The abdomen was opened and a smooth, rounded body that resembled the liver or spleen, but which was firmly adherent everywhere, presented itself. That it was not the liver was plainly to be seen, as this body occupied its usual position. The adhesions were broken up in direction of the spleen and on inserting the fingers found that it was absent from its usual site. The organ was found to be discoid in shape and about eight to ten inches in diameter, and the spleen, greatly enlarged, had moved downward, taking the position indicated. A large quantity of fluid gushed from beneath the spleen; the intestines were agglutinated and formed columns upon which it rested and within which was contained the fluid. The wound was closed by continuous suture.

This was evidently a case of tubercular peritonitis, with involvement and displacement of the spleen, the effusion being circumscribed by the peculiar disposition of the intestines, the spleen and plastic exudation.

NON-SURGICAL TREATMENT OF CANCEROUS UTERI.—C. R. Reed, M. D. *The Jour. Am. Med. Association.* The mother of several healthy children and who had passed the menopause some ten years before, being at the time 60 years of age, observed a red flow, which at times was quite profuse, and accompanied with severe pelvic pains. When this flow was slight, there was a watery discharge, the odor of same being characteristic of malignant disease. She gradually lost flesh and strength, and treatment, both local and general, seemed to give but little relief.

Coming under observation about a year after, it was found that the cancerous cachexia was well marked, and she was unable to sit up but little, being greatly emaciated. Morphine had been taken until the habit was contracted with all its dire results. An examination revealed a carcinomatous cervix, patulous, and there were several nodules which felt like large shot in the posterior part of the vagina. This examination caused a hemorrhage so profuse on expanding the blades of a bivalve speculum, that its arrest was a difficult matter, but was finally secured by the application of pure persulphate of iron.

Patient refusing to have the organ removed, a sharp curette was used once a week followed by the pure chromic acid. A swab of absorbent cotton was passed into the cervical canal immediately after it had been reamed out with the curette. This was first dipped into water then into dry chromic acid and carried as far as possible into the cervix and cavity, being held there until the hissing and smoke ceased, then withdrawn and the cervix packed with cotton, saturated with the pure persulphate, this latter being allowed to remain three or four days. The use of the curette always caused considerable hemorrhage, but this was immediately controlled by the use of the chromic acid. After several months of this treatment, a gradual improvement was noticed, hemorrhages ceased, general health improved, flesh, strength and color returned. It was continued for about ten months, when to all appearances she became entirely well of the dread disease.

Medicine.

MALFORMATION OF THE INTESTINES.—G. H. Cocks, M. D. *Brooklyn Med. Journal.*—I was called by a midwife on the evening of January 13, 1891, to see a female child, born that morning. The child had had no fæcal evacuation. The anus appeared perfectly normal. I introduced a probe to the depth of one and a half inches without difficulty. I ordered an enema of hot water and soap.

I called next morning; found abdomen much distended, the child crying as if in great pain; no fæcal movement after enema. I gave an enema myself, but nothing came away but a little mucus. I then introduced my little finger in the anus until I passed the promontory of sacrum, but did not find any meconium.

Believing that there was some obstruction to the lower part of the intestinal tract, I advised an iliocolotomy. This the father refused. The child died thirty-six hours after birth.

Autopsy.—Body appeared perfectly normal, limbs well developed, abdomen greatly distended. On opening abdomen, found general peritonitis. The folds of intestines were all glued together. The intestine which presented was of large caliber, about size of small intestine in adult, filled with a fluid material, and terminated in a blind sac in left iliac region. Tracing this tube upward, found it to be continuous with stomach. Directly beneath the small intestine was another tube filled with soft fæcal matter, until within two inches of anus.

This tube commenced in a blind sac, was about the diameter of a lead pencil; held to the small intestine, about two inches from duodenum, by peritoneal adhesions.

A normal vermiform appendix was given off from this tube, fifteen inches from anus.

It was plainly evident that no operation would have benefited the patient.

ACROMEGALY FOLLOWING SEVERE FRIGHT.—A case of this curious condition is reported by Pel (*The Review of Insanity and Nervous Disease*). A girl, æt. twenty-four, in blooming health, received a very severe fright in March, 1889. The next day she complained of headache, and pains and uncomfortable feelings in various parts of the body. There was asthenopia, eyes being intact, and great mental depression. No nervous ancestry. Menstruation was absent since the day of the shock. Soon after the fright, her friends noticed that her head was becoming larger, and she soon found that she could not get

gloves or stockings large enough. The lower jaw projected considerably, the mento-occipital diameter being ten inches, the corresponding circumference being twenty-eight inches. The nose was large and flattened, as well as both lips. The hands and feet, as well as the lower sections of the forearms and legs, were enormously, though symmetrically enlarged. Length of hands eight and one-fifth inches; of middle finger four and two-fifth inches; of index four inches. Length from acromion to tip of fingers, thirty-two inches. Both patallæ, the crests of the ilia, both clavicles, and the spine were enlarged, the thorax being normal. This is the first case reported in which a definite etiological factor has been determined.—*Brooklyn Medical Journal.*

A Case of Diarrhœa in a Woman One Hundred Years Old. John C. Leever, M. D. *N. Y. Med. Jour.* In June of this year was called to see old lady who on the 25th of last March celebrated her one hundreth birthday, and who had been suffering for several days with a severe diarrhœa, having taken nothing for the relief of same but some spice teas. A powder composed of opium, camphor, kino and bismuth was prescribed, but the next day found patient no better, and a change of medicine was ordered. Her condition continued to show no improvement for four or five days, when a cold water enema was given to which was added fifteen drops of tincture of opium, the bismuth and salol preparation being continued. This was given at bedtime and the next morning found her much better. This injection was repeated the following night, with the result that she was able to be up and dressed the next day, although feeling very weak. During the day she began to vomit, continuing every few minutes, but bismuth subnitrate and copper arsenite soon controlled this, and she completely recovered her usual good health.

Surgery.

Mixed Cavernous Sarcoma of Thigh, Amputation at Upper Third. Death.—R. Matas, M. D. *N. O. Med. and Surg. Journal.*—A patient about 26 years of age admitted to hospital, gave the history of a fall from pine tree about fifteen years before, a sharp stump being driven into inner side of the thigh to the depth of four inches. A small tumor had made its appearance at a spot corresponding to the apex of Scarpa's triangle some time before his presentation at hospital, which was supposed to be an aneurism, as pulsation was noticed and a murmur was thought to be heard.

This tumor, ovoidal in shape projected considerably above the thigh, the skin over it being tense, adherent, and above the center showing a livid color. It measured over 9 inches beginning at a point 3½ inches from Poupart's ligament, and reaching a point 4 inches above the internal condyle. It did not appear to spring from the bone, but originated deep in the thigh and though well outlined in the soft part, was not distinctly encapsulated, blending gradually with them at the periphery. A bloody ooze was noticeable in the most prominent portion of the tumor, being due to a fissure in the tense and livid skin. There was no pulsation thrill or murmur, and puncturing with an exploring needle, drew a syringe full of pure blood.

An immediate operation being necessary it was performed two days later. Chloroform was administered and an Esmarch bandage applied from the foot to the groin, and secured just below the groin. An exploratory incision was made following the long axis of the tumor, and penetrating to the center of the growth, from which considerable amount of dark venous blood spurted out. After hemorrhage had been stopped, it was found that large cavities existed in the tumor, and it was evidently a cavernous growth, the large spaces being occupied by a serous, colloidal and venous fluid. The caverns were hollowed in a stroma consisting of mixed osseous, chondroid and soft sarcomatous tissue. The integument and surface of the tumor were thoroughly adherent throughout the convex surface of the growth, showing a large loss of skin in removal of tumor. The whole femoral sheath was involved and imbedded in the neoplastic mass, but tumor appeared to be independent of the femur. In view of the complications the thigh was taken off at its extreme upper third, by a short anterior and long posterior mixed amputation. The hemorrhage was slight and readily controlled. After operation stimulants were administered and heat applied to body and extremities and consciousness returned in about an hour.

Six hours after operation the patient's condition not being satisfactory, it was decided to try the effects of an intravenous saline injection, which was infused warm. This seemed to improve patient's condition and he passed a comfortable night, but again showed signs of great prostration in the morning which continuing until evening it was again thought best to try the effects of a second saline injection. This as before was followed by beneficial results for a short time, but the man gradually sank and died two days after operation, from the effects of the shock, attendant upon the amputation.

Ventral Hernia—Rupture of Coverings—Escape of Intestines and their Exposure for Eighteen Hours—Recovery.—Jas. J. McKone, M. D. *N. O. Med. and Surg. Journal.*—Mrs. J. had been treated some twelve years before coming under observation for an abscess of the abdominal wall and at the time was confined to her bed for ten months. When able to be about, a hernia was noticed, but had caused no trouble until recently when she found the skin of tumor was turning black and treatment for gangrene of the skin was applied.

A few weeks after, she sustained a fall, and the gangrenous tissue gave way, from just below the umbilicus in a direction downward and outward toward the center of Poupart's ligament on the right side, and to the extent of four and a half inches. Through this wound thirty-four inches of small intestines escaped. The family physician not being found and the husband unable to speak English, he covered the wound with a towel and waited until the following morning, the intestines meanwhile lying on the abdomen, and fully exposed for eighteen hours. At examination made the towel was found adherent to the intestines and was carefully removed by irrigation with hot bichloride solution, the exposed coils matted together by recent adhesions being easily broken.

Ether was administered, and the abdomen was found traversed by thick bands of adhesions, most of which ran between the two widely separated portions of the abdominal fascia. These bands were tied and separated, the abdominal cavity thoroughly irrigated with hot water and the intestines replaced. It was

necessary to puncture the gut with a small trocar before reduction could be accomplished, on account of the large amount of gas. The gangrenous tissue was cut away, the wound closed with continuous silk suture, and glass drainage tube inserted. The dressing consisted of bichloride gauze, covered with absorbent cotton soaked in glycerine, the whole being retained by wide binder.

The intestines above and to the right side of the rent were firmly adherent to the inner surface of the integument by adhesions which could not be separated, this integument constituting the sole covering of the intestines, the peristaltic action of which was distinctly visible through the thin tissue, thus rendering an operation for the radical cure of the hernia impossible.

There was but little rise in temperature, and this was readily controlled. The glass tube was removed on the third day, and a rubber one inserted, but little pain being experienced after the first day. The dressing was removed on the eighth day, and primary union found to have taken place, except around drainage tube, but this subsequently healed by granulation. The patient made a good recovery and was soon able to attend to her household duties.

Quick Passage and Removal of Needle from Oesophagus.—Richard S. Hill, M. D. *Virginia Med. Monthly.*—A colored boy, six years of age, good size and health, was presented at office to have needle removed which he had swallowed some four hours before. A small protuberance was found on the right side, just above the fifth costal cartilage, the needle not yet puncturing the skin, but the pain was quite acute upon touching the prominence with the finger.

Chloroform being administered, a very rusty needle was removed, with the point broken, but seven-eighths of an inch long. The operation was very simple, consisting in taking up the skin with a pair of forceps, cutting through to the needle, and drawing it out through the cartilage. There was no blood vessels wounded and the patient recovered without complication. As the needle was already finding its way out of the oesophagus, and endeavoring to pass through the thoracic walls, it rendered the operation much more simple than it otherwise would have been.

Shedding Bones.—Dr. Bell. *Medical Standard.*—The woman, 71 years of age, seemingly in perfect health, and normal in every other respect twenty-one years ago, experienced an exfoliation of bone, beginning in her fingers, and during succeeding years continuing, until she has twice shed ulna and radius, humerus, scapula and part of inferior maxillary. This shedding takes place spontaneously without pain, hemorrhage, suppuration, inflammation, and in fact any inconvenience at all. There exists no deformity, supination, pronation, extension, flexion and circumflexion being perfect. The bones exhibited to the East Tennessee Medical Society were found to be perfectly natural. The woman is conscious of the expulsion some minutes before it takes place, a perfect bone being left in the place of the old one, which always makes its way out on the posterior side, and the wound thus made heals by first intention, though scars are left in many places. There was given a good history, no cancerous or other diseases existing as far as known, and the woman had never been poisoned or exposed to chemicals.

Œsophagotomy for Foreign Body in Infantile Gullet. L. P. Alexandroff, M. D. *Med. Obozrenie.*—A child one year and a half old swallowed a button, twenty millimeters in diameter, and although liquids could be taken, solid foods gave rise to vomiting. The foreign body was jammed in the gullet and repeated attempts to extract it through the mouth utterly failed. Seven days after the little patient was put under the influence of choroform, and external œsophagotomy performed, an incision three centimeters long being made in front of the left sterno-cleido mastoid muscle and the button extracted without difficulty.

Little hemorrhage occurred, but an attempt to close the wound with sutures failed on account of the friability of the walls. The mucous membrane at the level was found to be ulcerated and the œsophageal wall thinned. The parts were washed out with boracic acid solution, and a drainage tube inserted, which, however, was removed the following day, and the wound entirely closed in about three weeks after operation. The child made an uninterrupted recovery, and in less than a month was discharged quite well.

Foreign Body in the Bronchus. Fatal Termination.—*New York Med. Journal.*—A young clergyman in Brooklyn, of magnificient physique, being over six feet in statute and weighing nearly two hundred and fifty pounds, while in the act of administering a dose of medicine to one of his children, and holding the cork of bottle between his teeth, accidentally drew it into his respiratory passages, during the inspiration act after a hearty laugh. Five days afterward tracheotomy was performed and attempts made to grasp the cork, but this proved unsuccessful, owing to the imbedded state of the foreign body. Subsequently some days later another operation was performed, making use of a specially devised instrument for the purpose, but although it was brought into contact with the cork, it was impossible to break off more than a small portion, which was expelled by coughing.

An operation of thoractotomy on the left side in front was begun, and advanced to the point of exposing the ribs, when the cardiac flagging made it necessary to suspend the procedure. The right lung did the work of blood aeration for two weeks, but the rise of temperature above 102° indicated septic infection. The retention of the foreign body at last proved fatal, all efforts having failed to effect its removal.

Unusual Case of Nasal Polypus.—A. M. Shield, M. B., F. R. C. S. *The Lancet.*—The patient, a woman well advanced in life, had enjoyed good health until about five months previously, when she noticed an obstruction of the left nostril, with aching pain in the eye on that side, and lacrymal obstruction. The left nasal passage was found filled with a large polypus, having the usual gelatinous consistence and appearance of the common myxomatous nasal polyp. The tumor was mobile and pedunculated; no expansion of the nose, the naso pharynx being free.

As the introduction of the probe caused quite an extensive hemorrhage, it was feared that the disease might be malignant. Cocaine was used, and the tumor removed with the cold wire snare, the resulting hemorrhage being pulsating in character and very profuse, but the nose being plugged with lint and tannin, no bad effects followed. About two weeks after-

ward another growth was removed with the snare, and again the hemorrhage proved troublesome. The second mass was found to be soft, granulomatous and malignant. Three weeks after, there being a return of the obstruction, and believing it orignated in the turbinate bone, the free removal of the latter was advised, which was accordingly done some few days after.

The nose was opened laterally, the finger introduced and firm lobules of growth felt, which obviously had their origin from the antrum. It was therefore decided to remove the entire jaw, which was done in the ordinary manner. The bone was friable and broke down under the lion forceps. The whole antrum was filled by a malignant growth, which extended above to the region of the cribriform plate, and behind to the pterygoid region. The tumor was fairly circumscribed and at the conclusion of operation seemed to be entirely removed. The hemorrhage was very profuse during the whole time, and patient was in a very precarious state at the conclusion, but the active use of stimulants proved efficient and she ultimately made a good recovery, the incision rapidly uniting.

Therapeutics.

THE ACTION OF HYDRASTIN UPON THE VASCULAR SYSTEM AND THE UTERUS. – Authorities are divided upon the mode of action of hydrastin on the vascular system. Some have observed an increased blood-pressure and slowing of the heart's action, whilst others affirm that the drug paralyzes the vascular system. The uterine contractions provoked by hydrastin are due, according to some, to the direct stimulation of the muscles and of the cardiac nerves; according to others, to the stimulation of the central nervous system. It was for this reason that Serdtseff (*Les Nouveaux Rémedes*, February 24, 1891) had undertaken new experimental researches upon frogs (sixty-two experiments) and upon warm-blooded animals (fifty-seven experiments). These are the results obtained by this experimenter:

Given in a small dose hydrastin provoked, in frogs and in warm-blooded animals, slowing of the heart's movements, owing to a stimulation of the inhibitory apparatus, both peripheral and central. Small doses always increased blood-pressure; by larger doses it was lowered.

These differences depended upon the state of the vasomotor center. Small doses were not followed by convulsions, and did not paralyze either the respiration or the heart. He thinks, then, that if some observers have verified the paralyzing action of hydrastin upon the vascular system, it must be those who have given larger doses of the remedy. Regarding the influence exercised by hydrastin upon the uterus, the voluntary or rhythmic contractions of this organ would be increased in their strength, their number, and their duration.

Hydrastin does not act *directly* upon the neuromuscular apparatus of the uterus, but *indirectly* by the intervention of the central nervous system, and that very probably by way of the vasomotors.

In sustaining these obtained results the experimenter counsels the use of hydrastin in all those cases of hemorrhage where it would be, for one cause or another, unwise to await strong contractions of the uterine muscles, and where, in consequence, it is of the greatest importance to attack the bleeding through the vessels of the uterus.—*Med. News.*

ATROPINE IN THE TREATMENT OF LOCALIZED MUSCULAR SPASM.—Two exceedingly interesting cases of localized muscular spasm, one cured and the other greatly relieved, are reported by Lesznsky, (*N. Y. Med. Journal*, March 14, 1891). The first, a man, 37 years of age, suffered from spasm of the right side of the neck, of three years' standing. There was a well-pronounced clonic-tonic spasm of the right platysma, with an area of complete anæsthesia, and a muscle hypertrophied to nearly four times its normal size. A four-months' treatment with electricity and medicines had been of no avail. Under the daily use of atropine, hypodermatically administered, the affection disappeared in the course of two weeks. The author employed a solution of one grain to the ounce, of which one minim represents $^1/_{480}$ of a grain of atropine, and one to ten minims were administered at a dose.

The second case was that of a woman, 50 years of age, with marked facial spasm, involving the orbicularis palpebrarum. Electrical treatment produced no relief. In two weeks, after the employment of atropine, the relief was marked, and the spasm was converted into tremors. The improvement in this case was sufficiently encouraging to commend the method of treatment. The doses varied from $^1/_{120}$ to $^1/_{60}$ of a grain.

The author believes that in these cases the alkaloid, locally ingested, acts directly upon the intra-muscular nerve filaments, and thus produces the beneficial results observed.

COCAINE IN GASTRALGIA.—Dr. G. W. Steeves (*Lancet*, Sept. 10) says he believes cocaine to have special efficacy in certain cases of Gastralgia. In two instances, one of which was accompanied by intense gastric irritability (all food and liquid being immediately vomited), the exhibition of the drug was followed by almost immediate relief. Other treatment by morphine, belladonna, etc., has been previously tried, with no beneficial results. One case was that of a hysterical young lady, who, in addition to excessive gastric pain and epigastric tenderness, suffered from a general condition of hyperæsthesia. This patient had been under observation for ten days with no improvement whatever, but after the cocaine had been administered for twenty-four hours the pain was subdued, and remained so. She has not had an attack since, although previously to this similar seizures had been periodical, especially on the approach of menstruation. The hydrochlorate of cocaine was given internally in doses of ¼ grain every four hours; or more frequently if the gastric pain was excessive.

CHLORIDE OF BARIUM.—For a case of *obstruction of the vena cava*, general varicosity of all the veins of the body, Prof. Bartholow ordered injections of aqueous extract of ergot (Squibb's) along the side of the veins, which would excite enough inflammation to contract them; chloride of barium to contract the arterioles, $^1/_{12}$–$^1/_8$ grain, to be given in the form of pills.

ATROPINE IN HÆMORRHAGE FROM THE LUNGS.—Dr. Stirling says the *Therap. Gas.* relates a case in which hæmorrhage from the apex of the left lung was entirely uncontrollable by ergotin, and all the other remedies usually prescribed. He administered $^1/_{100}$ grain of atropine, hypodermically, with the result that the bleeding was at once stopped. He found that when the drug was stopped the bleeding recommenced, to be controlled by a further use of the atropine.

HYOSCYAMINE IN DYSPNŒA AND ASTHMA.—Benjamin Walker (*Lancet*, Aug. 20) after referring to the treatment of dyspnœa by nitrites as reported by Dr. Fraser (MED. ABS., p. 258) says: I desire to call attention to the action of hyoscyamine in this affection, and indeed in the treatment of spasm of involuntary muscular fibre, wherever existent—whether in the bronchi or hollow viscera (stomach, bowels, bladder). Given in the dose of half a milligramme (1/130 gr.), according to the urgency of the case, every half-hour or hour, until the spasm disappears; it is rare for the patient to be unrelieved after two or three doses; in cases of great urgency the first dose may be in the form of a hypodermic injection for quicker absorption. When relief is afforded, it may be given less frequently (two or three times a day), and gradually left off. I have never been disappointed with its action; it relieves the spasm promptly and efficiently, and the patient has no dread of an immediate recurrence of the dyspnœa. I usually give with the hyoscyamine small doses of strychnine (the arseniate or sulphate), in half-milligramme doses, as a tonic, and to counteract the tendency to adynamy. In spasm of the stomach or bowels, in dysentery, in strangulated hernia, and in retention of urine due to spasm of neck of bladder, hyoscyamine in small and frequent doses is invaluable, and will be the first remedy thought of by anyone who once gives it a trial in these affections. In a case mentioned a few days' treatment secured immunity varying from three to ten months.

BINIODIDE OF MERCURY IN SCARLET FEVER.—Dr. Illingworth, in the course of a discussion on scarlet fever (*Ed. Med. Jour.*), spoke strongly as to the great value of this drug in the treatment of scarlet fever. He has had the happiest results from its use, as it "modifies the course of the fever, reduces the temperature, checks or altogether prevents the inflammation of the skin, and prevents the dreaded sequelæ." He ascribes these benefits to the germicidal properties of the drug. By giving the bichloride solution of the B. P., with pot. iod. in excess, he holds it in solution and prevents mercurialism. For a child of seven years he orders half-drachm doses of the bichloride solution, with one-and-a-half or two-grain doses of pot. iod., every two, three or four hours. As soon as the rash disappears and the temperature becomes normal, iron is given. He applies the biniodide locally to the throat when necessary. When the stomach will not bear the solution, he gives one-sixteenth of a grain in powder, three times a day, with pulv. sacch. He believes in the prophylactic action of the drug.

CAMPHOR AND AMMONIUM SALTS AS STIMULANTS.—From some experiments Binz concluded that camphor is a good stimulant to the respiratory function when failure is threatened, as in opium poisoning. Chloride of ammonium is a stimulant to the nervous system, respiration and blood-pressure being increased by a fifth or a quarter in a few minutes.—*Deutsche Med. Wochenschrift*, Nov. 8, 1888.

BORATE OF AMMONIUM AND CYANIDE OF ZINC.—Prof. Lashkevich (*Pharm. Jour.* Aug. 27), has found borate of ammonium of value in the treatment of phthisis; it produced marked effect on the expectoration, and, in some cases, on the pyrexia. He combined the drug with codeine, henbane or some other sedative. The same authority has found in cyanide of zinc a remedy which exerts a beneficial effect on some cardiac cases, such as cannot be obtained by other means, particularly in cardiac neuroses, in which it acts quickly and certainly. Palpitation, want of rhythm, and pain in the region of the heart are quickly relieved and sometimes cured. The dose is from a tenth to an eight of a grain three times a day.

SPARTEINE.—Sparteine, an alkaloid of scoparius, is a cardiac stimulant, increasing the force of the contractions; the sulphate is slightly soluble in water and can be given subcutaneously (gr. ¼–½), diffusing rapidly into the blood, unirritating to the connective tissues, followed by prompt action; superior to digitalis in this respect, because several hours are required for the physiological effect of the latter. (Prof. Bartholow.)

PICROTOXIN IN NIGHT SWEATS.—Picrotoxin in doses of 1/80 or 1/60 grain is said to be a valuable therapeutic agent for *night sweats* of consumption. One dose at night preven ts sweating for about one week, when it becomes necessary to repeat the dose.

ACONITINE IN MIGRAINE.—Aconitine in pills of 1/200 grain, one pill every five hours till the supervention of the physiological effects, or till the pain disappears, sometimes has a charming effect in migraine and tic douloureux.

Obstetrics.

OBSTETRICAL CASE FOLLOWED FOR MONTHS BY DAILY DISCHARGE OF TWO QUARTS OF WATER FLUID THROUGH THE CERVICAL CANAL.—J. H. Bradshaw, M. D. *Jour. American Medical Association.*—At the close of seventh pregnancy was called to colored woman 34 years of age, who had experienced difficulty with most of her labors. Finding a face presentation, apodalic version was performed, after two ineffectual attempts with the forceps. The child weighed 12½ pounds, male, with large ossified head and was dead at birth. As there was an unusual amount of hemorrhage after the birth of placenta, the woman went into a condition bordering on colapse. The extremities were bandaged and ligated, whisky hypodermically administered with digitalis and two quarts of hot corrosive sublimate solution 1-3000 thrown into the uterus. No new lacerations were discovered and the patient made a rather good recovery until about three weeks afterward when there appeared a flow of water from the vagina. An examination was carefully made with speculum and the vaginal wall was found intact, but a watery discharge was distinctly observed coming through the cervix which was badly lacerated. A pint of colored solution was injected into the bladder, and as none came through the cervix, the patient passed the entire quantity per eretham. One of Jay's urine bags was inserted in the vagina and during the next twenty-four hours there was passed eighty ounces of a clear, colorous fluid, of no smell, a slight cloudy sediment on standing, sp. gr. 1001, alkaline reaction and slightly albuminous. Microscopically, there were found pus cells, granular detritus, a few large, epithelial cells and fibrin. During this time patient had voided 18 ounces of urine of normal appearance under microscope.

For three months patient passed daily about two quarts of this colorless fluid through the uterus, her general health continuing fairly good, and increasing in weight and flesh, although there was no distention

of abdomen. At several examinations that were made during this time a probe passed apparently through the fundus of the uterus into the abdominal cavity. This could be done without force, almost to a limitless extent, the point being felt close under its abdominal wall above the umbilicus.

One half grain of codeia every three hours, was prescribed with the result of checking the flow of fluid, but making her very drowsy, and producing constipation. This however was relieved by enemas. It has now been six months since her confinement, and if the woman does not exercise much, she passes very little fluid, walking causing a discharge of about two ounces a day. It is supposed that this fluid comes from the peritoneal cavity and is generated by the peritoneum.

Birth of a Viable Child at Six Months and a Half.—Dr. H. Collyer. *N. Y. Med. Journal.*—Reported a case of this nature. The woman was thirty-three years of age, had been married eleven years, and had had four children at term and one miscarriage. She had been under the speaker's care for chronic pelvic peritonitis, which fact had given him opportunities for observation in the case that he might not otherwise have had. On July 5, 1890, she menstruated as usual. On August 6th there was a scanty flow for three days. During the third week in August, changes were noticed in the uterus characteristic of the earlier weeks of pregnancy. The woman stated that conception must have occurred on July 13th, denying its possibility before that date. On January 4, 1891, while she was working a sewing machine, there was a sudden and profuse hemorrhage. All attempts to prevent labor were futile, and on February 3d she was delivered of a small male child weighing two pounds and two ounces. The child cried at once, and, wrapping it up warmly, the speaker waited for some five minutes till pulsation in the cord had ceased before separating the child from its mother. The placenta gave some trouble, and there was found attached to it an independent lobule. The bones of the child's skull were soft and overlapping. The testes had not descended, and the finger nails were only just showing. The infant was wrapped in wool and put in a basket, which was placed near a fire kept continually burning. At first the child was fed with milk and water from a spoon every two hours, and subsequently from the breast. It has since continued to thrive in every respect. The date at which the child was born and the general condition of its development would indicate the period of gestation at six mounths and a half.

Ophthalmology.

Metastatic Abscess and Cellulitis of the Orbit Following Double Suppurating Chancroidal Buboes in the Inguinal Region.—V. H. Wurdemann, M. D. *Amer. Jour. Ophth.*—A young man having had chancroids, followed by suppurating buboes in both groins, but which had received all necessary attention and pus had ceased to form, was found in a few days after to have irido-cyclitis, anterior chamber swollen, pupil irregular from synechiæ; considerable floculent deposit in anterior chamber, pain and photophobia intense; vision reduced to perception of hand before face. Panophthalmitis set in a week later. Scarification of chemosed conjunctiva and canthotomy gave temporary relief. Axillary glands became painfully swelled, but did not suppurate, and an exploratory incision showed no pus in orbit, but two days later, pus was found near insertion of the external rectus, when the globe was enucleated there being a large quantity released from a retrobulbar abscess, in the capsule of Tenon. This discharged rapidly for several weeks, when the patient began to improve, and an artificial eye was well borne in four weeks. The orbital affection was due to the deposition of a mycotic thrombus from one of the other structures more directly implicated, and this caused suppuration and extension of the disease to the other parts. All of the systemic symptoms were septic in character, and the orbit seemed to be the principal focus of infection, for all dangerous symptoms ceased after the operation on eye.

Otology.

An Unusual Symptom in Middle Ear Disease. Lake. *Lancet.*—That sound caused by air entering the middle ear on inflation canusually only be heard by means of the diagnostic tube, induces me to put the following case on record. Grüber says, speaking on this point, "for the more distinct perception of which (sound) the otoscopic tube is employed." Politzer, "which (sound) can be perceived either by placing the auricle immediately to the concha of the person," and also "this blowing sound has various degrees of strength and distinctness."

The patient, a young lady of twenty-one, was under treatment with middle ear catarrh due to Eustachian obstruction; air would not enter the cavities of the tympani either by Valsalva's or Politzer's method, and could only be driven in through a very fine catheter; the finest Eustachian bougie failed to enter the tube at all. Hearing (watch) left normal, and right four inches; after inflation eighteen inches. On February 20, 1891, I examined the nasopharynx under ether, and, finding some adenoids, they were removed with Daly's scraper, and a week afterward the nose was irrigated with an alkaline solution. After this had been employed daily for some days, my patient informed me, that when she blew her nose her left ear made a noise which her sister heard "across the room." I examined the ear, and found the drum apparently normal; the hearing of the right ear was now five feet. On April 6, I was sent for and told the noise was again present. On my arrival the patient used her saline solution and inflated her tympanum. I then heard the sound, and though I stood twenty feet away, I still heard it distinctly. It resembled the sudden inflation of a small bladder. Testing the Eustachian tubes, a large-sized bougie entered freely.

The Mississippi Valley Medical association meets in St. Louis October 14, 15 and 16. A party is being made up from Chicago physicians. Those desiring to join it may communicate with Dr. G. Frank Lydston, 812 Opera House block.

H. M. Whelpley, M. D., Ph. G., F. R. M. S., has been elected professor of physiology and histology, director of the histological laboratory and secretary of the faculty of the Missouri Medical College. The doctor is also professor of microscopy in the St. Louis College of Pharmacy and editor of the *Meyer Brothers' Druggist.*

Book Reviews.

FEVER; ITS PATHOLOGY AND TREATMENT BY ANTIPYRETICS, (Boylston Prize Essay of Harvard University, July, 1890). by Hobart Amory Hare, M. D., B. Sc., Clin., Prof. of Diseases of Children and Demonstrator of Therapeutics in the Univ, of Pa; Physician to St. Agnes Hospital and to the Children's Dispensary of the Children's Hospital, etc., etc. 8 vo. cloth,, pp. 196. Price $1.25. F. A. Davis, 1231 Filbert street, Philadelphia, Publisher. 1891.

During the past ten years there has been much written on the subject of which this essay treats, and to have as concise a summary of facts as the above volume gives is of great value to the busy practitioner. The author also discusses antipyrine, antifebrine, thallin and phenacetine and records the untoward effects produced by these drugs. A brief reference is made to the salicylates and cold bathing.

The author gives his experience as to rheumatism and the relief of pain and fever, which accompany this disease, and adds a number of his own experiments which helped him to clear up doubtful points about drugs under consideration.

This work is of a high grade of excellence and is a valuable addition to the Ready Reference Series of which quite a number have already been issued.

THE ORIGIN, PURPOSE AND DESTINY OF MAN, OR PHILOSOPHY OF THE THREE ETHERS. By William Thornton, Boston, Mass., 1891.

This book, as stated by the author in his preface, is a continuation of a previously issued work entitled "Rationalism in Medicine." In the introduction he says, "Because there does not seem to be much of a possibility of finding out the exact way by which things came into existence, it does not preclude one from having the license on a speculative ground to theorize on this subject." With this idea before him the author gives us a remarkable book, which will afford much food for reflection, after a study of its pages.

TEXT-BOOK OF OPHTHALMOSCOPY. By Edward G. Loring, M. D. Edited by Francis B. Loring, M. D. Part II. Diseases of the Retina, Optic Nerve and Choroid; their varieties and Complications. New York; D. Appleton & Co., 1891.

The first volume of this work was published in 1886 but before the completion of the second, death claimed the gifted author. The manuscript left behind him, has been collected and published by the editor, and although uncompleted is of great value to the ophthalmologists of this country.

Chapter I. is devoted to the retina in its pathological state, including disturbances of all kinds in its vascular system, from hyperæmia to atrophy of the vascular walls themselves. The relations existing between the caliber of the vessels and the interocular tension in its various stages are very thoroughly discussed, attention being called, among other points, to the strange anomaly of a normal or reduced diameter of the arteries in cases of diminished intraocular tension. The treatment of the changes in the light streak seen upon the center of the retinal vessels is very concise and full and there is an excellent description of the three principal forms of inflammation of the walls of the blood vessels.

Chapter II. irritation of the retina is given considerable attention, and in Chapter III. inflammation of the retina is treated fully, being divided into the sthenic and asthenic forms.

Chapter IV. describes the different varieties of retinitis, and an interesting description is given of septic retinitis, occurring in pyæmic conditions of the system and due to capillary embolism. In this part of the book will be found some very valuable cuts, illustrative of the subject under consideration.

Diseases of the optic nerve are treated of very fully in Chapter V. with a discussion of the ophthalmoscopic, macroscopic, and microscopic appearance of the optic nerve and sheaths in papillitis and neuritis proper.

In Chapter VI. the subject of atrophy of the optic nerve is taken up in all its complications and its effects upon the sight. Glaucomatous excavation of the optic nerve is also given attention and the title illustration of the book shows a case of glaucoma with the opthalmoscopic appearance, but also with a remarkable and peculiar emerald green hue of the disk.

The last chapter treats briefly of certain affections of the choroid and it is in the last two chapters that the incompleteness of the work is noticed. The illustrations are extremely true, and as a whole the book is one of rare value to the library of the oculist and also to the general practitioner, enabling him to recognize many rare diseases of the eye which might otherwise puzzle him in making his diagnosis.

MATERIA MEDICA AND THERAPEUTICS, WITH SPECIAL REFERENCE TO THE CLINICAL APPLICATION OF DRUGS. By John V. Shoemaker, A. M., M. D., Professor of Materia Medica, Pharmacology, and Therapeutics, in the Medico-Chirurgical College of Philadelphia. Volume II. of a treatise on Materia Medica, Pharmacology and Therapeutics. Cloth, $3.50 net; sheep, $4.50 net. F. A. Davis, Philadelphia.

This volume is a complete encyclopædia of modern therapeutics in a condensed form. Each remedy is studied from three points of view—the preparations or materia medica; the physiology and toxicology or pharmacology and the therapy. Special consideration is also given to the diagnosis and treatment of poisoning by the more active drugs, and the actions and uses of all noteworthy new remedies receive attention. The author has sought to combine all useful information for physicians that it was possible to include in one book, and has furnished them with an indispensable work.

PRACTICAL INTESTINAL SURGERY. By Fred B. Robinson, B. S., M. D. 12 mo. paper, pp. 166. Detroit: George S. Davis, 1891.

The writer has given the results of years of experimental work in two volumes in the Physicians' Leisure Library series. He says in introductory remarks, "This book is the result of original experimental work, and an attempt to add something to the field of gynæcology. Any gynæcologist who opens the abdomen for some preconceived view should be able to skillfully treat any unexpected contingency. Intestinal surgery has been completely revolutionized the past three years, and its progress during that time has had no parallel in history. Much of the field is yet open and unsettled, but gradually many of its new operations are being recognized as established surgical procedures from simple success."

The dangers relative to invagination and suggestions how to avoid them are dwelt upon very fully in this work, and we feel sure that every surgeon and gynæcologist will cordially welcome this little book as a substantial addition to the volumes already published on gynæcology.

"Electricity, Its Application in Medicine," by Wellington Adams, M. D. Two numbers, Vols. I. and II. Geo. S. Davis, Publisher, Detroit.

Vol. I. treats of the principles of electricity, currents, forces, battery cells and meters, and is followed by Vol. II., which describes the forms of electric machinery and their application, electro-physiology, electro-chemistry, electro-diagnosis and electro-therapy. A description is also given of the different static electric machines, storage batteries, ordinary and cabinet batteries, with the work it is intended to perform. The work can be read with profit, although in a greatly condensed form.

"Taking Cold," by Francke H. Bosworth, M. D., Professor of Diseases of the Throat in the Bellevue Hospital Medical College of New York. Detroit: George S. Davis, 1891. Price, 25 cents.

The author in his preface states that it is singular that taking cold has not received more attention in the ordinary text-books of clinical medicine, especially when it is taken into consideration that a large number of diseases are the direct result of exposure to cold. He has endeavored to show in the little book the manner in which we take cold and the proper method of preventing it in regulation of our habits of life. Every one may not agree with all the views set forth, but on the whole they may be read with profit. An exchange, in speaking of the work, says: "If you wish to floor the recent graduate, interrupt his disquisition on multiple neuritis and ask him about the pathology and treatment of taking cold."

"Sexual Neurasthenia"; Its Hygiene, Causes, Symptoms and Treatment, with a chapter on Diet for the Nervous, by George M. Beard, A. M., M. D. Edited by A. D. Rockwell, A. M., M. D. New York. E. B. Treat, publisher, 5 Cooper Union, 1891, Price, $2.75.

The third edition of this work on sexual neurasthenia, or sexual exhaustion comes somewhat enlarged and improved from former publications. The causes and symptoms of forty-three cases are given, also a chapter on Diet for the Nervous, with Treatment and a number of formulas. This is an excellently gotten up work, concise yet exhaustive, and to the active practitioner it will prove of sterling worth in helping his diagnosis of the many and varied nervous disorders. The rapid publication of this edition after the second, gives ample proof as to how the profession regard this ably progressive presentation of a most intricate class of diseases.

"The International Medical Annual" and Practitioner's Index for 1891. Edited by P. W. Williams, M. D., Secretary of Staff, assisted by a corps of thirty-eight collaborators--European and American--specialists in their several departments. 600 octavo pages. Illustrated. New York. E. B. Treat, publisher, 1891. Price $2.75.

The ninth issue of this reference book is up to the standard of the former editions, and if we would place it in comparison with them, would say that this one excels any of its predecessors. Those persons who have been fortunate enough to possess previous volumes will not need any encouragement to procure this one, while the members of the profession who have not been so fortunate cannot do better than to at once make the addition to their library. It is what it claims to be—a recapitulation of the year's progress in medicine and serves to keep the practitioner abreast of the times with reference to the medical literature of the world. Many illustrations and colored plates add value to the work. The arrangement of the whole is alphabetical and in addition the complete index makes it of great value to the hurried medical man.

Had Read Marc Antony.

Not even the Toughs of Halsted Street could make him forget it.

Now and then some comical things happen in the receiving room out at the county hospital. Dr. Hectoen was on duty one night and had fallen asleep on the little cot provided for physicians on duty, when he was aroused by the rattle of the patrol wagon at the front entrance. He listened to the shuffling footsteps in the hall and knew it was a case of drunk, with more or less elaborate trimmings. Finally two policemen struggled into the room assisting one of the most wrecked and dilapidated specimens of humanity that ever lay on a stretcher. The fellow had become intoxicated, had fallen into a quarrel and had suffered a terrible beating. His face was badly cut in a dozen places. His lips were swollen and bleeding, his eyes were blackened and half shut, his cheeks were lacerated and his teeth were loose, and over all was the raggedest, muddiest, most disheveled suit of clothes possible to imagine.

They laid him on the operating table, and one of the attendants assisted the doctor to remove the garments and bathe him, while the policemen bade goodnight and went back to their beats. Spite of his liquor and his terrible drubbing the fellow was game, and a sort of grim humor welled up every moment of the operation that was necessary to fit him for recovery. He joked about the stitches in his cheek, and told the doctor the needle must have been case-hardened. He protested against the plaster, and claimed he had always heard a porous plaster recommended. He finally pulled out a loosened tooth and offered it to the attendant for a paper weight.

At last the patching was completed and he stood up in an unsteady fashion, his single garment being the sheet with which he had been covered after his bath and while the doctor had been at work upon him. A tall miror at the end of the office attracted his attention and he walked toward it, wrapping his sheet about his shoulders as if it had been a Roman toga, struck the most heroic of attitudes and delivered himself to the sewed and cemented figure in the glass:

"O, pardon me, thou bleeding piece of earth,
That I am meek and gentle with these butchers!
Thou art the ruins of the noblest man
That ever lived in all Chicago.
Woe to the hands that shed this costly blood!
Over thy wounds do I now prophesy—
Which, like sealed lips, do struggle to exclaim—
To beg the voice and utterance of my tongue—
A curse shall rest upon the fiends of Halsted street
Who basted me with brickbats."

"Good-night, doctor; I'll go to bed."

The meeting of the Mississippi Valley Medical Association is of great importance to western physicians. A fine programme and a good time are promised.

A homeopath of this city recommends gelsemium as indicated in violent tendencies to start. Homeopathically this should cure horses of the balks.

Dr. Daniel Morton has severed his connection with the *Medical Herald*, of St. Joseph, Mo.

Items of Interest.

There are over 40,000 physicians in Japan.

The American Public Health Association will meet in Kansas City, Mo., Oct. 20.

The Philadelphia *Medical News* is now under the editorial management of Dr. Geo. M. Gould.

An African chieftain suffers with apoplectic attacks, which has caused paralysis of the right arm.

The sale of tuberculin has been forbidden by law in Munich and is absolute, druggists not even being allowed to sell to medical men.

Mix acids with water by pouring the acid into the water and not the water into the acid, as the latter process may cause an explosion of steam.

A man recently committed suicide in a California hotel by blowing himself into atoms with dynamite bomb. The room was badly damaged and furniture broken.

A Dental School and Veterinary School will be established in connection with the Detroit College of Medicine. This will make four departments in that college.

Charles Dudley Warner says that the difference between the "faith cure" and the "mind cure" is that the mind cure doesn't require any faith, and the faith cure doesn't require any mind.

The New York Pasteur Institute is in need of funds to continue their work for the future. Fourteen hundred patients have been inoculated of which 75 per cent were unable to pay for treatment.

The School of Medicine of the University of Texas, will have eight chairs ranging in salaries from two to three thousand dollars each and require an entrance examination, a session of seven months, and a three years' graded course.

The thermometer at the John Hopkins University, known as Prof. Rowland's thermometer, is valued at $10,000. It is absolutely perfect, and the graduations on the glass are so fine as to require the use of a microscope in reading them.

Dr. Neipce, a French physician of All-ward, claims to be the discoverer of an anti-tuberculous lymph. He states in a letter to the French Academy of Medicine that in 1886 he published a monograph, and refers to Cornil to substantiate his claim.

Dr. John H. Rauch has resigned from the office of Secretary of Illinois State Board of Health, which position has been held by him for fourteen years.

This is a step to be regretted by every person who has at heart the advancement of the medical profession.

Edward J. Jerome, of Newark, N. J., while adjusting a turning lathe in his paper mill caught his beard in the cogged wheels and his face drawn toward machine. He shifted belting quickly, but not in time to prevent his beard from being torn out by the roots.

Venereal diseases are said to be almost unknown among the laboring men of Paris. Out of 3,240 men in the prime of life, Dr. Fiaux found but five suffering from gonorrhœa and chancroid, and not one from syphilis. These men were applicants for work on a railroad.

Nothing so quickly restores tone to exhausted nerves and strength to a weary body as a bath containing an ounce of aqua ammonia to each pail of water. It makes the flesh firm and smooth as marble, and renders the body pure and free from odor.—*Annals of Hygiene.*

Many cases of bone felon have been successfully treated in the following manner: A poultice, of equal parts of powdered soap and desiccated salt (anhydrous sodium chloride) and enough balsam fir to make a mass, was applied twice daily for three days, when it made a hole to the bone, and the "core" was then easily removed.

The Indiana State Medical Society has endorsed the action of its medical schools in requiring of their students, prior to graduation, four years of medical study, and three courses of lectures of six months each. The State authorities are asked to refuse recognition to the diplomas of such schools as do not make an equivalent requirement. The State Board of Health is said to approve of this action.

Female physicians are required by law in the State of New York to be employed at the State Insane Asylums to look after cases where their services would be specially appropriate. They pass their examinations before the State Civil Service Commission and receive the appointments if successful. The ones free to compete must have had one year's experience in hospital practice, three years general practice and be a resident of the State.

Cook County Hospital has received appropriations from the county commissioners amounting to $195,000, $80,000 to be used for two new pavillions, $35,000 to be used for a morgue, $40,000 for a detention hospital for the insane, and $40,000 for detached wards for contagious diseases. Plans are perfected and the work will be rapidly carried forward. The morgue and detention hospital being now well under way.

The Kentucky State Board of Health has passed a law and hereafter will only recognize the diplomas as shall after the coming winter session exact of matriculates and graduates a minimum of requirement not lower than that required by the American Medical College Association. This will probably cause some trouble as there are quite a number of medical colleges throughout the Southern States that do not come up to this standard.

The resignation of the board of censors, Drs. Goodell, Stillé, Hunt and Da Costa, of the College of Physicians of Philadelphia, has caused trouble. The trouble arose from a recommendation of censure upon Dr. Joseph Price, for the use of slanderous language toward a fellow member being unfavorably received, the college by a vote of 45 to 40 postponing its consideration. The college is quite an old one, having been founded in 1787.

When twins are born in France, the last born is considered by the law the eldest. Consequently, if both survive, and in case of boys, reach manhood, the second is called to the army to serve, being pronounced the eldest. By some extraordinary calculation the medical men who were consulted at the passing of the act years ago came to the conclusion that the last born of twins was always the first conceived. —*Medical Press and Circular.*

From the records of Yale College during the past eight years it is shown that the non-smokers were twenty per cent taller than the smokers, twenty-five per cent heavier, and had sixty-six per cent more lung capacity. In the last graduating class at Amherst College, the non-smokers have gained in weight twenty-four per cent over the smokers; in height, thirty-seven per cent; in chest girth, forty-two per cent; and in lung capacity, eight and thirty-six hundredths cubic inches.

Professor Breeger who recently investigated the poison of spiders, found that the Russian varieties of spider *Phalanchium* and *Trochosa* (Tarantula), are non-poisonous, but that a third, *Caracurt* or "Black Wolf," secretes a powerful poison forming 25 per cent of its whole weight. This substance when introduced into the circulation of warm-blooded animals in very small quantities, was sufficient to cause death. It exceeds in power all known vegetable principles, and prussic acid, being comparable in toxicity with the poison of snakes.

Wit and Humor.

Germs in the air,
Germs in the sea,
Germs wherever one may be,
Germs and to spare,
Growing in me,
German germs from Germany.

Whate'er we say
Or write or think,
Germs will wriggle in the ink.
On tongues they'll play,
And "culture" drink
From each minute cerebral chink.
—*Boston Med. and Surg. Journal.*

"Bessie, I heard your sister is sick. What ails her?" "Maybe it's the diploma." "The what, child?" "The diploma. I heard mother she took it at school."

Editor (writing to professional humorist)—Send some more "grip" jokes.

Humorist (writing back)—Can't I've got it.—*New York Sun.*

A Careful Physician.—Rich patient (wearily)—Doctor, do you think I'll be well very soon?

Doctor (absent-mindedly)—Not if I can help it.—*Washington Post.*

Countryman (to dentist): "The tooth next to that 'un aches, too, Doc."

Dentist: "Yes, it aches in sympathy."

Countryman: "Yank it out. Durn such sympathy."

Mrs. DeBoffin says that her son Jakey has a cough. The doctors examined his expectation with a telescope and found it full of common Priscillas; they then inflated his rinctun with carbolic acid gas and he is improving now.

"Aunt Sallie, what's the matter with Aby?"

"The doctors say he got two-buckles on his lungs. Dat's what went with my two shoe buckles I los' las' month. Cain't leave nuffin' around de house now on account dat boy."

Deeply Concerned.—"Your uncle, sir," said the physician who had been hastily called in, "is threatened with softening of the brain."

"Any symptoms of that kind about his heart?" inquired the poor relation anxiously.

"Be me sowl," exclaimed Mrs. Finnegan, "Iverything is blamed on the poor Oirish nowadays. Wud yez belave it, Pat? They do be sayin' that an Oirishman gave the people in the sout' the yaller faver—a felly be the name av Mike Robe."—*America.*

Boarding school mistress—I presume you would like your daughter to become familiar with physics? Anxious Mother—Lund sakes, no! She ain't never been sick a day in her life, but if anything should happen both her pa and me prefer hommyopatha to allypathy, anyway.

"Doctor, my daughter wants to go to college, and her father has hurt her feelings so terribly by telling her to stay home and learn to keep house, I'm afraid she is going to mope herself to death. What shall I do?" "Hurt her feelings, eh? "Yes, dreadfully." "H'm; use Vassar-line."

Powerful Medicine.—A colored woman threw the odds and ends of medicines, left after her husband's deoth, into the fire. The explosion that followed carried the stove through one of the windows. "Mos' pow'ful movin' medsin I eveh saw'd" she said. "No wondah de old man gone dead,"

A Literary Success, Anyway.—First citizen—Is Professor Koch's new cure for consumption a success?

Second citizen—A success? Well, I should say so! A quarter of a million copies of his pamphlet describing it have been sold, and the publishers refused $2,000 for the advance sheets of the work.—*Somerville Journal.*

A little Buffalo girl was not feeling well, and her parents suggested that she might be about to have chicken-pox, then prevalent. She went to bed laughing at the idea, but early next morning went into her parents' room, looking very serious, and said: "Yes, it is chicken-pox, papa. I found a fedder in the bed."—*Christian Leader.*

Robinson: Are you off for a trip, Brown?

Brown: Yes, I'm going to take a four-weeks' run over to London, Paris, and some of the German capitals.

Robinson: Business?

Brown: No, health. My physician says my system is all run down and that I need absolute rest.

A young doctor, wishing to make a good impression upon a German farmer, mentioned the fact that he had received a double education, as it were. He had studied homeopathy, and was also a graduate of a "regular" medical school. "Oh, dot vas noding," said the farmer; "I had vonce a calf vot sucked two cows, and he made nothing but a common schteer, after all."

Bobbie (breathlessly)—"Are you a snake doctor?"

Dr. Bill (haughtily)—"I am not; I am a regular practitioner."

Bobbie—"Well, then you won't do, but pa's resolutions have broken loose again!"—*New York Sun.*

A three-year old Philadelphian had heard her parents discuss hygiene until her infant mind was soaked with the subject. One day her dear old grandmother said—meaning to give Bessie a piece of cake—"Bessie, what do you always have after your bath?" The child regarded her grandmother for a moment with inquiring eyes, and then replied: "Reaction."—*Christian Intelligencer.*

Woman in the dentist's chair: "Oh, those horrid, cruel-looking forceps! Won't they nearly kill me, doctor?" Dentist: "Madam, as I am a man of truth and honor, you won't feel them." Tooth comes out like a cedar knot. Woman shrieks blue ruin and bloody murder. "You wretched man; you said I wouldn't feel them!" Calm dentist: "Neither you didn't; that was the tooth you felt; forceps never hurt anybody.—*Burdette.*

It seems it is very improper to question a physician as to the special ailments of one of his patients. On the ordinary grounds of courtesy such a question is impolite, but one can imagine circumstances under which it is pardonable. Somebody who was not informed ventured to ask a Winchester doctor not long since what was the matter with a friend who was under his care. "Matter?" grunted the disciple of Æsculapius. "Matter? Why, she's sick."

Josh Billings on Doctors.—Doktors are not all quaks; you hav got wrong noshuns about this. Doktors, lawyers and ministers have a hard row to ho; they hav to deal with kredulity, knavery and fears ov the people—three ov the most difficult traits in human natur tew handle. If i was a doktor and understood my bizzness, i should doctor my pashunts, and let the disease take care ov itself. More folks are cured this way than enny other.—*Med. Times.*

An African clergyman, in preaching from the text: "And multitudes came unto Him, and He healed them of divers diseases," said: "This is a terrible text, my dying congregation. Disease is in the world. The small-pox slays its hundreds, the cholera its thousands and yellow fever its tens of-thousands, but in the language of our text if you take the divers, you are gone. These earthly doctors can cure small-pox, cholera and yellow fever, if they get there in time, but nobody but the good Lord can cure the divers."

"Doctor," he said, as they met on the platform of the street car, "can I get a little advice of you."

"For cash?"

"Well, no. I simply want to ask a question or two, and being I'm an old patient of yours you won't think of charging me."

"Go ahead."

"Well, my feet are troubling me and I thought—"

"Say! Cut 'em right off!" interrupted the doctor, "I've often wondered why you didn't do it. I've got to get off here—good night!"—*Detroit Free Press.*

A lady visitor (at office of eminent physician)—"I have called, doctor, to ask if there any cure for sleep-walking. I have had the habit for years, and lately it has become worse."

Dr. Highprice—"It can be cured, madam. Take this prescription and have it filled at Colde, Steele & Co's."

"Colde, Steele & Co.'s? Why, that is not a drug-store. It is a hardware store."

"Yes, madam. The prescription calls for a paper tacks. Dose: Two tablespoonfuls scattered about the floor before retiring."

"I want to see the professor," said a rather faded-looking woman as she went into the gymnasium.

"I am he."

"Could I offer a suggestion?"

"Certainly."

"Well, it seems to me that it might be a very good idea to fix up some arrangements in the shape of coal-scuttles, load them up pretty heavy, and offer a prize to the young man who can lift one the oftenest. It does look as if the gymnasium didn't do much for the muscles you have to use in lifting a coal-scuttle.—*Washington Post.*

Examiner (to aspirant for pharmaceutical honors): "Well, now, Mr. Murphy, tell me how you would prepare extract of logwood."

Candidate (hesitatingly): "I'd—I'd get me logwood, sur."

Examiner (approvingly): "Just so Mr. Murphy."

Candidate (confidently): "I'd get me logwood, sur, and—and"—(after a long pause, desperately)—"put it in a tincture press; squaze the juice out av it; filter through paper; boil, to soften the albumin; thin evaporate to a syruppy consistency, decant the ethereal solution, and preserve in a stoppered bottle." Entire collapse of examiner.

The following well-deserved tribute was paid to Dr. Bedford Brown, of Alexandria, Virginia, at a banquet given by Dr. Richard Douglass, of Nashville, Tenn., in honor of the officers of the Southern Surgical and Gynecological Association, November 12th, 1889:

Be this my tribute to the snow of age,
The crowning glory of our honored friend
Whose name adorns our record's page,
And added grace doth seem to lend.

As winter snows fall softly down
And noiselessly spread over us,
So fell on that beloved head
The silvery crown before us.

Beloved Nestor, with us stay
Till many summer's suns are past,
And many winter's snows shall melt away,
And when thy noble head at last
Shall bow beneath the chilling breath
Of the only foe that thou hast had,
May thou serenely welcome death
And in the hope of rest be glad.

And when those sturdy bones shall be
At peace amid thy fathers,
May we of feebler mould still see
Like beacon light o'er Lethe's waters,
The luster of that brilliant crown
Of wisdom, sage and beauty,
A mentor for all time to come
To teach us all our paths of duty.

Modern Medicine.

First they pumped him full of virus from some mediocre cow,
Lest the small-pox might assail him, and leave pit-marks on his brow;
Then one day a bull dog bit him—he was gunning down at Quogue—
And they filled his veins in Paris with an extract of mad-dog;
Then he caught tuberculosis, so they took him to Berlin,
And injected half a gallon of bacilli into him;
Well, his friends were all delighted at the quickness of the cure,
Till he caught the typhoid fever, and speedy death was sure;
Then the doctors with some sewage did inoculate a hen,
And injected half its gastric juice into his abdomen;
But as soon as he recovered, as of course he had to do,
There came along a rattlesnake and bit his thumb in two;
Once again his veins were opened to receive about a gill
Of some serpentine solution with the venom in it still;
To prepare him for a voyage in an Asiatic sea,
New blood was pumped into him from a lep'rous old Chinee;
Soon his apetite had vanished, and he could not eat at all,
So the virus of dyspepsia was injected in the fall;
But his blood was so diluted by the remedies he'd taken,
One day he laid him down and died, and never did awaken;
With the Brown-Séquard elixir though they tried resuscitation,
He never showed a symptom of reviving animation;
Yet his doctor still could save him (he persistently maintained),
If he only could inject a little life into his veins.

—*Puck.*

Miscellaneous.

Hot water is one of our best remedial agents. A hot bath on going to bed, even in the hot nights of summer, is a better reliever of insomnia than many drugs.

Inflamed parts will subside under the continual poulticing of real hot water.

Very hot water, as we all know, is a prompt checker of bleeding, and besides, if it is clean, as it should be, it aids us in sterilizing our wound.

A riotous or rotten stomach will nearly always receive gratefully a glass or more of hot water.—*Medical Mirror.*

The London *Lancet* has been laying great stress on the importance of sleep and to those who would live a long and useful life. Seven to nine hours, according to the temperament and constitution, is the modicum that ought to be taken, and the greatest regularity of the hours of slumber the better its effects are. The public is urged not to unduly prolong the day, for man, in common with most of the animal creation, has accepted the plain suggestion of nature that the approach of night should imply a cessation of effort. If he ignores this principle his work is done against inherited habit, and so far with additional fatigue. The practice of working by artificial light is strongly deprecated, and the *Lancet* shows that the old custom of early rest and early waking is certain to prove in future, as returns of longevity and common experience have shown that it has proved in the past, most conducive to healthy and active life.—*Times and Register.*

The Lay of the Lymph.

The following appropriate lines have appeared in the *British Medical Journal:*

Who'll kill the bacillus?
"I," said Herr Koch,
"With my lymph and syringe,
I'll kill the bacillus."

Alas! Doctor Koch,
With false hopes you fill us;
For firm as a rock,
Holds the field—the bacillus.

And assembled bacilli
Through a cultur'd bacillus
Say, "We're not quite so silly
As to let Herr Koch kill us."

"Must admit," owns Herr Koch,
"I can't kill the bacillus,
Only cut off the stock
Of supplies from bacillus."

Replieth Herr Virchow,
"No lack of supply;
From one organ driven
To another he'll fly."

So some vow with a twinge,
"No more shall you drill us
With your lymph and syringe,
You can't starve the bacillus."

Secret Remedies in France.—In the *Journal d'Hygiéne* of June 11, 1891, is published the reply of M. Crinon to a letter from Sir Edward Sieveking to the French Society of Hygiene, asking for precise information on the subject of secret remedies in France. It runs thus: "There are a very considerable number of secret remedies in France. Among secret remedies are included every drug not contained in the French Pharmacopœia, or not approved by the Academy of Medicine. Since the publication of the last edition of the Pharmacopœia no drug has been formally approved by the Academy, and therefore every nonofficial drug comes under the heading of 'secret remedy.' Slight variations of official formulæ do not, however, come under this heading, as they are allowed in practice to be legal." This comprehensive and sweeping definition of a secret remedy may have the virtue of simplicity, but it has the drawback of including these new drugs which are in no sense secret. It bans all new therapeutical substances with an unpleasant name, until they have been formally received into the French Pharmacopœia, even though their formulæ and mode of preparation are as well known as those of any official drug.—*British Medical Journal.*

Aspidospermine.

The active principle of quebracho blanco. It is used in any case where a fluid extract of the plant would be indicated, as in difficult breathing attendng the latter stages of consumption, asthma where it is the result of an organic change in thestructure of the parts, bad cases of bronchitis, and in many other cases where there is difficult oxygenation of the blood. The effect of the administration will often be manifest for twenty-four hours after it is given, and in such instances it is not necessary to repeat the dose until the condition of the patient demands it. I regard it as a very valuable medicine, and one that fills a place that has been unoccupied.—*Exchange.*

Western Medical Reporter.
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ORIGINAL ARTICLES.

The Question of Early Operative Interference in Acute Peritonitis, with Especial Reference to the So-called Idiopathic Peritonitis in Children.

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A perusal of the record of results of strictly medical treatment in acute peritonitis, since that disease was established as an entity by Bichat, in 1802, is not conducive to professional conceit. Before the introduction of the opium treatment by the late Dr. Alonzo Clark, in 1850, the disease was almost invariably fatal. Prior to Clark's innovation opium had been given in moderate doses by Stokes, Graves and others, for its anodyne effect. Clark, however, advocated putting the bowels, as he expressed it, in "opium splints" through the medium of full narcotic doses of the drug. According to this eminent authority the criterion for the administration of the drug is the production of the following symptoms: "Subsidence or marked diminution of the pain; some or considerable tendency to sleep; contraction of the pupils; reduction of the breathing to twelve respirations per minute. In the favorable cases a considerable reduction in the frequency of the pulse; a gentle perspiration and itchy state of the skin, or oftener the nose. Absolute inactivity of the bowels, and after a time subsidence of tumescence and tenderness and some suffusion of the eyes."

This treatment was immediately adopted by the majority of progressive physicians as a routine measure, and has, strange to say, for forty years been the main reliance. Reaction against this routinism is but just now attaining prominence. In no other field of medicine has there been a less pronounced spirit of progressiveness during all these years than in the treatment of peritonitis. The ready adoption of the opium method and the implicit reliance which was placed upon it, was probably due to the fact that previous methods of treatment had signally failed, and the new method had at least the merit of saving a certain proportion of cases, and under its use the sufferer from the disease was certainly comfortable. As compared with the success attainable in other acute inflammatory affections, the opium treatment of peritonitis has not proved a brilliant success.

In an excellent article upon peritonitis, Dr. Stiles Kennedy,[1] of St. Louis, Mich., concisely presents the true status of the opium treatment when he says: "Speaking for myself, with thirty years' active practice, I pronounce the treatment a miserable failure. All patients do not die under the opium treatment, but 75 per cent. of them do." With a much shorter period of observation, the brevity of which, however, has perhaps been compensated for in a measure by several years' hospital experience, I can heartily endorse Dr. Kennedy's position. Great as was the advance in therapeutics instituted by Dr. Clark, it unfortunately came to be regarded as the *ultima thule* of therapeutics of abdominal inflammations. Who is there here but will bear me out in the assertion that any attempt to classify and differentiate abdominal inflammations with regard to a discriminating selection of therapeutical methods, has usually been regarded as rank heresy—I was going to say malpractice—ever since the opium treatment came in vogue? Even those who have discriminated between traumatic and so-called idiopathic cases of peritonitis have failed until quite recently to discriminate in the matter of treatment. Septic cases, in which apparently the principal object to be attained is the draining away of putrid materials both from the abdominal cavity direct and *via* the intestinal canal, have been treated upon the same principles as cases which were apparently of non-septic origin.

There is a feeling at present among progressive physicians—and to strengthen this is the principle object of this paper—that peritonitis is, so to speak, more of a surgical disease in general than it has been regarded heretofore. Speaking for myself, with a keen realization of the hopelessness of the majority of cases when medically treated, and I believe, with a proper appreciation of the origin of the disease in the majority of cases, I feel warranted in the assertion teat peritonitis should nearly always—I am going to say invariably—be relegated to the domain of surgery. To put it vulgarly, I might support this position by the assertion that the physician has had an inning of forty years' duration, which, to carry the base-ball phraseology a little further, has resulted in a "goose egg." It is but fair that the surgeon now be given a chance to compare methods at least; as far as experience has gone the results of surgery are certainly more encouraging than those attained by medical treatment. The more thoroughly the pathology of peritonitis is studied the more obvious the truth of this assertion becomes. Like most surgeons, I now see few cases of peritonitis which are not distinctly recognized as traumatic. As most cases are supposed to be idiopathic, the surgeon sees comparatively few such. I believe, however, that a proper appreciation of the true pathological and etiological status of the disease on the part of the general practitioner will enable the surgeon to observe and treat such cases more frequently.

The etiology of peritonitis has attracted considerable attention. It has usually been divided into idiopathic (primary and secondary), and traumatic.

I have no hesitation in putting myself upon record as believing that there is no such thing as primary idiopathic peritonitis. The more carefully we inquire into the history of the disease the narrower the range of the so-called idiopathic cases becomes. To attribute the disease in the absence of any known organic cause, to exposure to cold, dietary indiscretions, etc., is, it seems to me, simply a substitute for an honest expression of ignorance. That the disease may be secondary to certain constitutional affections is probably correct. It has been attributed to rheumatism,[2] erysipelas,[3] and the various eruptive fevers, especially scarlatina,[4] equinia or glan-

1 American Lancet, December, 1889.

2 Vivant, 1884.
3 Cheurlin, 1879.
4 Moor. Dublin Journal Medical Sciences, 1876.

ders,[5] septicæmia, and purulent infection.[6] Its dependence upon puerperal septicæmia, uterine and pelvic inflammations is well known. Anstie describes epidemic infections peritonitis as being due to sewer gas. Certain chronic constitutional diseases, such as gout, Bright's disease, and tuberculosis are well known causes. Renal disease, as a cause of abdominal inflammation, is mentioned by several excellent authorities.[7]

Traumatic peritonitis is not always easily traced to its cause. There are many cases of course which are readily so traced. A history of injury with palpable lesion, either in the form of penetrating wounds, or such conditions as contusion or rupture of the liver, spleen, stomach, intestines, kidneys, bladder or womb is most usually elicited.

The relation of cause and effect is sufficiently plain in the case of operative interference with the abdominal cavity or its contents. Certain rough manipulations of the abdomen have been known to produce the disease. Compression of the left ovary in an hysterical woman has been known to produce it.[8] I mention this especially to show how slight a cause is sometimes sufficient.* The dependence of the disease upon minor gynecological operations, intestinal perforation from various causes, such as tpphoid fever, typhlitis, perityphlitis, etc., is well recognized.

Although it is supposed that idiopathic peritonitis may occur at any age up to that of 55 years, it is a well recognized fact that "idiopathic cases" are relatively much more frequent in children, the frequency being in inverse proportion to the age.

Children are very often taken with the disease while apparently in a condition of perfect health. This, it seems to me, is in itself inconsistent with the idiopathic theory;—a fact which is significant is that adhensions and pus are an almost invariable result of idiopathic peritonitis. One of the best arguments in favor of surgical interference that I have seen is the näive assertion of Gauderon that recovery sometimes follows the escape of pus through the umbilicus. This mode of termination was noticed by him in eleven cases out of twenty-five, and of these eleven cases there were eight recoveries. It would be interesting to note how many of the remaining fourteen cases recovered, as showing in how far the chances of recovery were directly dependent upon the exit of the pus; *i. e.*, in how far nature's surgery was a hint to the surgeon.

It has occurred to me that the reason for the greater apparent frequency of idiopathic peritonitis in children is due to their inability to describe the particular accident to which the inflammation should properly be attributed. Children receive so many bumps and falls that even when well advanced in years they are not likely to attribute any special importance to any particular accident. The peritoneum being more sensitive in children, their greater susceptibility to peritonitis from slight injuries is at once obvious.

Leaving secondary peritonitis out of the question, I do not believe in the existence of the idiopathic variety of the disease of young children. It is very easy to injure the peritoneum, especially in young subjects in whom the strength and thickness of the abdominal walls are by no means proportionate to the responsibility of protecting the viscera. Abdominal fat in young children, for example, is not very abundant. The sensitiveness of the abdominal contents in children to various causes of irritation is a well recognized explanation of the excessive mortality rate of childhood. Not only are the viscera relatively more sensitive than in the adult, but the peritoneum is also a *locus minoris resistantiæ*. Injuries which are so slight as to be innocuous to the adult may produce peritonitis in young children. I believe that peritonitis in young children follows very often injuries so slight that the child never complains of them. I am firmly convinced that the so-called idiopathic peritonitis always follows a lesion of greater or less severity. Severe strainings at stool, blows upon the abdomen producing bruising of the intestines, parietal or visceral peritoneum or mesentery may produce it. Comparitively slight violence exerted upon the stomach when full—and we all know how disproportionately prominent the distended stomach in young children is—may give rise to peritonitis. Very slight injuries to other viscera and especially the liver, may give rise to the disease. The bruising may be so slight as to leave no trace which is visible post-mortem, and yet be sufficient to light up general peritonitis. A bruise over the distended bladder, or if the bladder be not bruised, a wrench of its peritoneal attachments incidental to a fall, may give rise to the disease.

A point which I desire to again emphasize is the disproportionate size and weight of the abdominal contents in young children, as contrasted with the natural provisions for their protection. As a corollary of this point, I venture the assertion that falls and jars may in children produce concussion of the abdominal contents with resultant strain (with or without slight rupture), of those retentive ligaments which are either derived from or invested by the peritoneum. There is certainly in young children considerable disproportion between the strength of these retentive ligaments and the weight and dimensions of the organs which they are intended to support.

A cause of peritonitis in children, which I believe will in the years to come be more frequently recognized, is inflammatory aflections in the region of the cæcum. I believe that typhlitis and perityphlitis, due to enteroliths or other foreign bodies in the vermiform appendix, constitute one of the most frequent causes of so-called idiopathic peritonitis in young children. The reason, it seems to me, that this is not more frequently recognized is the fact that in children the disease runs a very rapid course, has a more pronounced tendency to general extension, and kills the little patient before those tardy evidences of localized inflammation and suppuration are recognized by the physician. How frequently we overlook cases of perityphlitis in the adult, treating them perhaps for typhoid fever or some other disease for days or perhaps weeks before we are enabled to make a positive diagnosis. It is all very well for the surgeon who is called in at the eleventh hour, to criticise the physician for failing to discover the pathognomonic induration in the ileo-cæcal region at an early day, but there is a question in my mind whether the surgeon himself in many instances could have done any better. With a

5 Mahomet. Schmidt's Jahrbücher, 1884.

6 Hilton Fagge, 1873.

7 Woillez. Bull. de la Soc. Med. des Hop., 1885. Hilton Fagge. Guy's Hospital Reports. 1873-1875.

8 Comby. De Bull. de la Soc. Anat., 1880.

* There was possibly, in this instance, tubal disease, the contents of the tube being discharged or its walls ruptured by the manipulation.

full realization of the possibilities of error in the differentiation of typhoid and perityphlitis, I will confess that I have myself remained in doubt for days at a time, in cases in which I afterward operated. If, then, we make such mistakes in the case of the adult, how much more likely are we to overlook until too late, localized inflammation in the child.

The disease begins abruptly, extends quickly, and within a very few hours perhaps we may have an enormously distended abdomen and all of those physical conditions which absolutely preclude that careful and thorough examination which might insure an accurate diagnosis. Often, in my opinion, the little patient will die of acute general peritonitis which has originated in perityhlitic inflammation long before an adult would perish under the same conditions. The formation of lymph, plastic material, and protective adhensions does not occur in the child because of the rapid extension of the inflammation. The child dies unoperated on, and the case is recorded as another sad illustration of the fatality of idiopathic peritonitis in children. Authorities are united in the opinion that pus is rapidly and almost invariably formed in the peritoneal cavity in children. As already stated, a number of cases of recovery have occurred in which the pus escaped spontaneously. Under such circumstances the chances of life of the patient are entirely dependent upon the caprice of nature. If the pus escapes early enough or burrows in a favorable direction the patient may recover. If nature is unkind, death results.

In a general description of perityphlitis, Drs. E. W. Lee and J. B. Murphy, well-known and competent surgeons of Chicago, concisely state the situation as follows: "Are we doing our duty to our patients by allowing them to take such chances? Why should pus in this locality be allowed unaided to find its favorable or unfavorable exit, in contradistinction to the well established rule to properly aid its escape in all other parts of the body where accessible? Who has not seen a similar case to this? The patient is taken suddenly ill, complains of pain in the abdomen; has vomiting, a rapid, feeble pulse, and a pinched, anxious expression of countenance. Examination revesls the abdomen to be uniformly distended and sensitive—in short, with all the symptoms of acute peritonitis, usually terminating fatally on the third or fourth day. *Were we permitted to make autopsies on all of the cases presenting the above history we would find that a large percentage of them were produced by the rupture of a perityphlitic abscess into the peritoneal cavity.*"

I will apply these remarks especially to cases of peritonitis in children, and I believe that I am warranted in asserting that in a large proportion of cases of fatal so called idiopathic peritonitis in children, we would find, were we permitted to make an autopsy, that the disease had originated in perityphlitic inflammation rarely perhaps would we find the inflammation to be secondary to an abscess which had ruptured. To present my ideas more concisely, I believe that many cases of peritonitis in children are due to perityphlitic inflammations which are similar to those occurring in the adult, with the exception that in the child they are followed immediately by acute general peritonitis, while in the adult intermediary changes about the cæcum occur. In cases of traumatic origin, the site of the injury might escape observation because of the rapidity with which ecchymosis had disappeared.

Regarding the dependence of peritonitis in children upon slight traumatism, I have in my own limited experience met with a number of cases which were supposed to be idiopathic, but in which careful inquiry elicted a history of slight traumatism. I recall a case at the present moment of a child in the neighborhood, who was not under my care, who died of what a number of competent physicians termed idiopathic peritonitis. My wife, who was interested in the little one, was discussing the case with me one evening, and upon my expressing my belief that the child must have been injured in some way, exclaimed: "Now I remember, the little girl was playing with some of the other children in front of our house a day or so before she was taken sick, and I saw one of the other children push her down. She fell with her stomach across a curb stone. She got up, cried for a few moments, and then went about her play as if nothing had happened."

The second case, which came under my observation in consultation, was pronounced idiopathic by two competent physicians; but careful inquiry among the playmates of the boy revealed the fact that he had injured himself by jumping from the roof of a shed two days before he came ill. As his mother had forbidden his climbing upon the shed, he had concealed the fact of the injury. This concealment on the part of young children through dread of parental sternness is in my estimation a frequent cause of obscurity in the etiology of peritonitis.

Still a third case. I was called by Dr. G. W. Reynolds, of Chicago, to see a case of peritonitis from some unknown cause, and found a child of five years of age already *in extremis*. On inquiry I found that the child had recently been presented with a velocipede from which he had fallen several times. He had hurt himself slightly, but not severely enough to attract attention on the part of his parents.

In this case, as in the preceding, I attributed the peritonitis to concussion of the abdominal contents. I have notes of several other cases of a like character, but will not burden the Section with their recital.

The treatment of acute peritonitis is undergoing a pronounced change. Indeed, the transition from narcotic routinism bids fair to bring the profession to the opposite extreme. The free administration of laxatives, especially those of a saline character, is now being advocated in some quarters quite strenuously. This is going to the opposite extreme with a vengeance. Once again, there seems to be a tendency on the part of the profession toward indiscrimination in the proper selection of cases. Lawson Tait and Greig Smith openly advocate saline cathartics in the treatment of peritonitis of a surgical character. Bantock, however, opposes this. It is not my intention however to discuss the merits and demerits of medical treatment, as my paper is already spinning to an unwarrantable length.

The surgical treatment of peritonitis is to my mind the most important consideration in connection with this disease. The trite aphorism that "history repeats itself" is well illustrated in the case of peritonitis. Erasistratus and Soranus ages ago several times cut into the peritoneal cavity in the inguinal region to evacuate pus accummulated in the abdomen. From this time, however, until 1735 a period of surgical horror of the abdomonial cavity existed, surgeons being afraid to touch the peritoneum.

In 1735 Petit (*fils*) advocated operation for perito-

nitis. In 1737 he operated upon cases of traumatic peritonitis, with favorable results. He was followed in 1748 by Garengeot. Chomel advised operation to permit the escape of effusion after the subsidence of acute symptoms. In 1846 Guerin advised copious irrigation of the peritoneal cavity with warm water in generalized puerperal peritonitis, suggesting the removal of effused fluid by aspiration and the injection of warm water until the liquid returned clear. He advised an operation at the supervention of meteorism. In 1861 Marten[9] advised the opening of the abdomen with the knife, especially in peritonitis due to pathological perforations. In 1865 Keith[10] operated upon an ovarian cyst in a patient suffering from acute peritonitis; recovery followed. In 1876 Kaiser[11] reported several cases of simple purulent and puerperal peritonitis in which operation proved successful. Puerperal peritonitis has several times been surgically treated with good results. Traumatic peritonitis has frequently been treated by surgical interference since the modern works of Vincent-Bouilly, 1883, and Chavasse, 1885. Prior to 1887 Lawson Tait had already operated upon nearly fifty cases of peritonitis of all kinds. Since that date he has operated upon many others. He says distinctly, "Whenever I find myself in the presence of localized or generalized peritonitis, whatever may be the cause, I open the abdomen and treat the peritoneum according to the indications furnished by actual inspection. Peritonitis is, in abdomonial affections, a most powerful indication for surgical interference."

It has been shown that a comparatively slight exploratory incision will often suffice to bring about a favorable result.

In concluding the general history of the surgical treatment of peritonitis, I feel safe in asserting that it is a modern procedure which is rapidly gaining favor all over the world.

I will now discuss briefly what appears to me to be the principle arguments in favor of early operative interference in peritonitis, especially in the grave forms of so-called idiopathic peritonitis in children and in traumatic peritonitis under all circumstances, but more especially where the inflammation is generalized, or has resulted in the local accummulation. of pus. An important point in considering the surgical treatment of peritonitis is the analogy of the peritoneal membrane to the pleura, and other serous membranes to synovial structures. Inflammations of these tissues are, as is well known, extremely painful and disproportionately depressant. Much of the pain and depression is incidental to distension of the sensitive membrane by the accumulated products of inflammation. How frequently a slight surgical procedure will secure relief from the most intense agony in such conditions! Puncture of the anterior chamber of the eye in serous iritis; puncture of the tunica vaginalis in cases of epididymitis; incision of the tunica albuginea in orchitis; aspiration of the thoracic cavity in effusive pleuresy, are all familiar illustrations of this surgical principle. Relief of tension is the only measure which in such cases will produce rest. The more intimately associated the affected membrane with the sympathetic nervous system and with the organs of vegetative life, the more severe the agony and the more pronounced the resulting depression. Applying these principles, as we all do, to inflammation of other structures, why should we not apply them to peritonitis? What membrane of the body is more delicate, more sensitive, more important in its physiological functions, more intimately associated with vital organs, more intimately associated with the lymphatic system, and, most important of all, so intimately associated with the sympathetic ganglia, than is the peritoneum? Taking these things into consideration, is there any wonder that inflammation of so fragile a structure produces such a disproportionate degree of vital depression?

Careful clinical observation has shown us that *pari passu* with the development of meteorism and distension of the abdomen by fluid products of inflammation, we have a pronounced increase in the depression of the powers of life. Not only does inflammation of the peritoneum *per se* produce reflex inhibition of the cardiac ganglia, but incidentally to meteorism and effusion there occurs a direct mechanical interference with the action of the heart. Does it not seem, gentlemen, that the first indication in a case of peritonitis is the relief of pressure and incidentally the removal of gas, fluid and foreign bodies?

So profound is the influence of abdominal distension upon cardiac action that we are apt to be misled in our judgment as to the wisdom of an operation. Many cases that seem too far gone to warrant an operation may recover if the depressing effects of tension upon the peritoneum and abdominal organs and the mechanical interference incidental of meteorism are removed by operation. So simple an operation as aspiration of the intestines will often produce an almost immediate relief from pain and a decided and unmistakable improvement in the character of the pulse.

I would like to ask the members of this section whether there is, in their estimation, any possible objection to operation in cases of peritionitis. The indications for the operation are pain, contraindications are *nil*. Should we hesitate to interfere with the peritoneum, which can under any circumstances be interfered with, providing we can prevent inflammation and sepsis? Should we hesitate, I say, when inflammation is already present and the conditions for sepsis already exist, and when, moreover, the only possible way to avoid sepsis is to remove the products of inflammation, or such foreign materials as may be responsible for the condition present? I do not believe that judicious operation will in any case lessen the prospect of recovery. I believe, further, that delay in most cases impairs the chances of the patient.

In operating, especially in children, it is best to be conservative. It is possible to evacuate purulent and gaseous matters without superadding to the shock of the peritonitis that of an extensive operation. A small exploratory incision, with a flushing out of the peritoneal cavity and a thorough washing of the matted coils of intestine with warm water, either plain, slightly saline, or impregnated with boracic acid, will, in my estimation, relieve tension, favor asepsis, and save life in many cases. While the operation should be done early where practicable, it is my belief that there are few cases in which the operation is not indicated, providing the patient is not already *in articulo mortis*.

Since becoming converted to this view my experience has been limited to a single case, which I will briefly recount.

9 "Surgical treatment of Peritonitis," Virchow's Archives, 20, p. 530.
10 Lancet, 1865, vol. xi. p. 86.
11 Deutsche Arch. f, Klin. Med., 1876, 17, p. 74.

Case 1.—This was the case of a girl, seven years of age, who fell against a table, injuring the abdomen slightly. She made very little complaint, and it was not supposed that the injury was of any importance. On the fourth day peritonitis developed and ran a very rapid course. The child, however, was strong and vigorous, and although considerably prostrated the case seemed an exceptionally favorable one for surgical interference. On the third day I proposed operation, which was consented to. I opened the abdomen in the median line by a small exploratory incision two and a half inches in length, punctured the intestine with an exploring needle at all accessible points, and flushed out the abdominal cavity with warm water containing a small amount of boracic acid. I inserted a small drainage tube and stitched the incision about it and dressed the wound antiseptically. The operation of flushing was repeated on three successive days, after which time the drainage tube was removed and the wound allowed to heal, which it did perfectly. Relief from the operation was immediate, and the suffering of the patient was at no time thereafter severe.

After the operation a full half ounce of Epsom salts was administered, which resulted in very profuse catharsis. I could see no possible objection to this procedure, and I think that the recovery of the patient was partly attributable to it. It certainly appears to me logical to apply, where possible, the principle of depletion to inflammations of the peritoneum. This is best secured by salines. I do not wish to be understood, however, as advocating the saline treatment as a routine measure.

In conclusion I will formulate my views of acute peritonitis as follows:

1. I do not believe in the existence of acute idiopathic primary peritonitis.
2. The majority of cases of so-called idiopathic peritonitis in children will be found, upon inquiry, to be traumatic.
3. Slight injuries of the abdominal contents are relatively more dangerous in children than in adults.
4. Acute peritonitis in children, while apparently idiopathic, is often secondary to perityphlitic inflammation, which runs a rapid course and extends to the general peritoneum without the intervention of appreciable local changes.
5. The profound prostration and cardiac inhibition characteristic of peritonitis are in a great measure incidental (1) to tension of the peritoneum produced by inflammatory products, with a consequent reflex inhibition of the heart, and (2) mechanical interference with the heart's action.
6. Surgical interference is indicated in all severe cases of general peritonitis and in cases of localized suppurative inflammation, or in cases of perityphlitic origin, whether due to foreign bodies or not.
7. There is every indication present for operation, and no logical objection to it. The operation is almost invariably palliative, if not curative.
8. Operation in no sense impairs the chances of recovery. *Per contra*, it inhances them to a great degree.
9. No case should be allowed to die without operation, unless already *in articulo mortis*.
10. It is not nccessary to make a large incision, excepting in cases in which perityphlitic abscess is known to exist, which is rarely the case in children. If perityphlitic abscess exist and is recognized before operation, the incision should be made at the most favorable point, which in the majority of cases is the typical line for ligation of the common iliac, as pointed out by Murphy and Lee. In by far the majority of cases in children a simple median exploratory incision, with flushing of the abdominal cavity, is sufficient.

Nasal Cystomata—Report of Two Cases.

By C. W. Richardson, M. D., Washington, D. C.

Cystic tumors involving the mucous membrane of the nasal passages, *i. e.*, true retention cysts, are very rare, if one must form his opinion from the meager number of reported cases, and the treatment received by this subject—or not received—in most of the classical works upon rhinology. Many of our standard authorities make no mention of this subject, either under a special caption or under the general subject of mucous polyps. Bosworth in his great work upon the nose devotes one page and a half to the consideration of this neoplasm. Watson and Sajous devote a small space to the consideration of this growth, both referring to its rarity. Wagner reports Leffert's case *in extenso*.

Seiler, in a few lines, speaks of having seen this form of neoplasm and describes it "as large sessile cysts filled with the watery mucus and springing from lower border of inferior turbinate." McKenzie, Brown, Greville, McDonald, Cohen, Ingals, Sturck, Votolini, Schech, Bresgen and Moldenhauer make no mention of the subject.' In the literature which was accessible to me I found reported four undoubted cases of nasal cystomata, two of which were made by British and two by American observers. To Dr. George Johnson belongs the honor of having reported the first case, which is delineated in a most excellent manner, and with a most exact drawing, in the *London Medical Circular* for 1864. The other observers are Lefferts, [1] E. Fletcher Ingals, [2] and Reginald Horsley. [3]

Spencer Watson reports a case under this heading in the proceedings of the Medical Society of London, but in its description he shows it to be rather a cystically degenerated mucous polypus than a true retention cyst. In the second edition of his work upon the nose he acknowledges this fact in the following lines:

"In the proceedings of the Medical Society of London a case of mine is recorded which might be more properly described as a cyst-bearing polypus than as a cyst."

Carl Seiler, in referring to the report of Leffert's case in the *Philadelphia Medical Times*, refers to having seen three cases, and reports another, a cystically degenerated fibroid growth. The latter could hardly be classified under this grouping. It is important to bear in mind that there is a marked difference between the true retention cyst and a cyst formed by the degeneration of a solid growth. As Watson says: "It is not uncommon to meet with small adenomata which have been undergoing cystic degeneration," and the same is true of gelatinous polypus. With Johnson's, Leffert's, Ingal's

1 Medical News, Philadelphia, 1883, xlviii, 653.
2 Weekly Medical Review, Chicago, 1884. ix, 97.
3 Trans. Med. Chi. Soc. Edinburgh, 1889-90, N. S. ix, 43-51.

and Horsley's cases, which are reported in full, and Seiler's three, of which he only makes mention, we have, so far, reported seven of these interesting neoplasms.

The pathological history of these growths, within the nasal cavity, cannot differ from that of true retention cysts occurring upon mucous surfaces in general; being formed from retention of the secretion within the normal glands of the mucosa. The pressure of the retained secretion becoming great, an abnormal activity takes place within the gland, and it slowly or rapidly becomes transformed into a true cystic neoplasm. The seat of attachment of these growths is, as described by all authorities, and as present in my two cases, on the outer wall of the nasal cavities, between the middle and inferior turbinated bodies, about 2 centimetres anterior to the mouth of the Eustachian tube. In four of the cases they appeared in the right, and in two in the left nasal cavities. They are pyriform in shape, of a grayish white color, resembling very much the ordinary gelatinous polypus. They have been observed at all ages, from the twentieth to the fiftieth year of life.

The symptomatology of this condition does not differ from that due to other obstructive diseases of the nasal fossæ. More or less catarrhal secretion is always present, with various degrees of obstruction to nasal respiration through affected passage. Owing to the valvular-like action of the growth, obstructing the post-nasal orifice, expiration is more difficult than inspiration. During respiration the patient feels a to and fro movement in the nasal cavity, due to oscillation in growth produced by the impact of the incoming and outgoing column of air. Voice shows usual want of nasal character. Pain is usually absent; but there is always noted a disagreeable sense of fullness upon affected side, as though something foreign were in pharynx. Nasal reflexes may or may not be present. In Horsley's case asthma was a very pronounced symptom, which was relieved by removal of growth. By inspection, through anterior nares, at the posterior portion of the passage can be seen a prominent reflex, moving during respiration. It is only through posterior rhinoscopy that the characteristic outlines of the growth can be observed. The tumor is seen as a large pyriform mass of a grayish white color, having very much the appearance of a mucous polypus, filling out more or less completely one post-nasal orifice. Ramifying over surface of neoplasm are numerous small blood vessels. On sounding with a probe, it will be noted that the mass is firm, not pitting upon pressure, or presenting that soft, elastic feel of gelatinous growth.

Diagnosis.—The diagnosis of this condition should present no difficulty to the cautious observer. We have the evidences of obstructive nasal catarrh, unilateral in its character, gradual in its onset, and of varying time as to duration. The voice is markedly altered; and to that degree only present in complete obstruction of nasal cavities, or in interference with functions of velum palati. Direct inspection by anterior and posterior rhinoscopy shows existence of polypoid-like, pyriform neoplasms, projecting from nasal into pharyngeal cavity.

The differential diagnosis from mucous polypus is very simple. These gelatinous growths never spring from the seat of attachment of cystic bodies; they rarely ever grow singly, and before reaching the size of these bodies would have many companions; they are soft, indenting to the probe, never giving that firm, solid-like impression imparted by the cystic neoplasm.

From fibroid, sarcomatous and carcinomatous growths, the differential is so simple as not to require description. Is very rare and presents the characteristic pulsation.

Prognosis.—Removal is always attended with absolute relief. No recurrence has ever been noted.

Treatment.—The treatment to be adopted is that of removal of the neoplasm. The simplest method of removal and the one likely to cause the patient the least discomfiture, would be the preliminary tapping of the cyst, and evacuation of its contents. The empty sac could then be blown forward into the nasal cavity by the patient, where it could readily be grasped by forceps, over which a snare should be threaded and the mass easily enucleated.

This proceeding had to be resorted to in both of my cases, although, I am sorry to say, after I had given them considerable discomfiture by attempting to remove the growth in its entirety.

Cases.—My first case came under my observation November 24, 1889. The patient was a young Hungarian, thirty-two years of age. For ten months past he had noticed a gradually increasing obstruction of right nasal cavity, which had, during the past two months, become almost absolute. He had no pain, although a feeling of discomfort, as though something foreign existed in nasal and pharyngeal cavities, was always present. The alteration of his voice was the condition that annoyed him the most. He is a professor of languages, and it was necessary that his voice should be good. During inspiration, a small amount of air could be drawn through cavity, but expiration was impossible. Left nasal cavity was clear. There was some post-nasal secretion. On examination by anterior rhinoscopy, there was nothing observed in anterior portion of cavity to give any clue as to cause of interference with the normal function of this organ, but deep within the passage could be seen a reflex, indicating the probable existence of a polypoid growth. In the upper portion of pharyngeal cavity was observed a large pyriform, polypoid looking growth, bearing all the resemblance to a true mucous polypus. The base of the growth could only be seen, as it nearly filled out the whole pharyngeal cavity, above the soft palate. Digital exploration demonstrated the growth to be limited largely to the right side, with its seat of attachment within the nasal cavity. It was dense, non-elastic; not presenting the soft, gelatinous feeling of a mucous polypus. I was lost for a diagnosis. Removal was attempted by snaring through the nose, but while adjusting loop over the growth, with finger in pharynx, the sac ruptured, and the contents, a clear serum, was evacuated; the relief was complete. The patient, while clearing his nasal cavity of serum, blew the sac forward, and it presented itself at anterior nares. Supposing the mass to be free from its attachment, I grasped it with a pair of forceps, tearing off the base, which is here represented. Finding that still some remained I threaded a snare over a pair of forceps, again grasped the mass, and enucleated it from its attachment. I failed to make measurements, but the growth, which has now been immersed in alcohol for eighteen months, speaks for itself.

My second case presented all the symptoms of the first, above mentioned. The patient was a young ma

of twenty-three years of age, a lithographer by profession. Had noticed obstruction for six months. The growth was not so large as in former case. The diagnosis was made of cystomata, and growth removed with same mishaps as in former case. Dr. H. L. E. Johnson kindly assisted me in first case, and Dr. H. B. Deale in second.

Aneurysm of the Thoracic Aorta, With Pericarditic Effusion.

Sudden Death from Rupture Into the Left Primary Bronchus.

By Hermon C. Gordinier, M. D., Troy, N. Y.

The following interesting and instructive case, which recently came under my observation, I deem worthy of recording:

B. K., aged thirty-five; occupation, sanitary inspector. He was of good habits; used stimulants very sparingly. Has two brothers living and in perfect health. Has been perfectly well since childbirth until March 1891. Denies syphilis absolutely. The cause of his present illness was due to a heavy strain while pitching coal into the cellar. From this time on he had pains in the side attended with expectoration, also with shortness of breath. He was treated by Dr. H. for bronchitis for a period of six weeks. Not improving, he consulted Dr. Lyons, and I was called April 20th in consultation with Dr. Lyons. The patient was sitting in a chair with his hands on his knees gasping for breath. He was a well-developed, muscular man, weighing about one hundred and ninety pounds, short in stature. Lips, lobes of ears, and finger-ends cyanotic. No puffiness of face. Chest well developed. No œdema of chest or ankles. Chest perfectly symmetrical. Veins not prominent. No local bulging observable. Heart's apex in normal position; its impulse feeble. Right pupil dilated. Left moderately contracted. No epigastric pulsation. The movements of the left side of the chest were restricted. Auscultation of right lung was normal, of left lung showed a decided feebleness of the respiratory murmur, both anteriorly and posteriorly, with a diminution of vocal resonance, which was very feeble and appeared to come from a distance. A few moist rales were detected on the left side. A peculiar wheezing sound was heard, reminding one of a paroxysm of asthma. The right side of the chest was superresonant on percussion. The left side higher in pitch and shorter in duration behind and in axillary region. Cardiac dullness apparently normal. No pulsation in episternal notch, nor anywhere over front or back of chest. The right radial pulse much smaller than left. The first sound at apex had lost its booming quality and was short and valvular, resembling the second sound. The second sounds, both aortic and pulmonic, were apparently normal, although feeble and distant. No thrills or murmurs were felt or heard while auscultating the heart or great vessels. Careful auscultation posteriorly in the intervertebral grooves was negative. Vocal cords normal. No difficulty in articulation or swallowing.

These symptoms taken collectively, in conjunction with the great pain, the great diminution of chest expansion and respiratory signs on the left side, with the normal position of the heart, the dyspnœa being relieved with the hands on the knees and the trunk bent forward, led me to believe that our patient was suffering from either an aneurysm or an intrathoracic growth, and I so expressed myself to the doctor. In favor of an aneurysm was the suddenness of the attack, coming on so shortly after great exertion; the great pain, which he described as being of a boring nature, and his general good health without the slightest emaciation. In favor of the thoracic growth were the entire absence of local bulging or expansile movement of the chest and the absence of murmurs of cardiac or of aneurysmal origin and of thrill.

Six weeks later I was again called by Dr. Lyons. I found the patient greatly excited, with a very anxious expression, unable to lie down. His lips, face and finger-ends were cyanotic. Respiration, 50. Pulse, 120. Temperature, 100° F. Examination of the chest showed an almost complete lack of respiratory expansion on left side, with an evident bulging in the precordial region. Heart's apex not to be seen. On percussion, flatness was detected at the second rib, which extended in a diagonal manner downward and outward, an inch and a half below and two inches outside of the left nipple, and a finger's breadth to the right of the sternum. Over this flat area the heart sounds were feebly heard at base, but not at all at apex, and no friction or endocardial murmurs could be detected. Vocal fremitus, vocal resonance, and respiratory murmur absent over flat area. Outside of this area percussion was hyperresonant. Behind, a few moist rales, with broncho-vesicular breathing, were heard. A diagnosis of pericarditis with effusion was made and an operation for its relief advised. At 3:30 p. m. the same day Dr. W. W. Seymour was called in consultation, concurred in the diagnosis, and advised aspiration, which I performed, drawing off about an ounce of bloody serum. The following day the patient was much better, his dyspnœa greatly relieved, and in every sense he was improved. The improvement continued and the patient was able to go out on the street. I lost track of him, save to learn from Dr. Lyons that he was still suffering from that boring pain. I heard nothing more of him until his sudden death from hemorrhage.

Post-mortem Examination at 5 P. M., September 2d (thirty hours after death).—Patient died suddenly. He was taken a few minutes prior to death with a severe pain in the side and coughed up a large quantity of dark, partially coagulated blood. Post-mortem rigidity well marked. Subcutaneous adipose tissue one inch thick and of normal appearance. Veins of chest dilated. A cicatrix between the fourth and fifth ribs denoted the situation of a former incision for aspiration. Only the thorax was allowed to be opened. The pericardium was markedly thickened and had several organized patches of lymph on its surface. There was a marked increase of fat on the external portion of the parietal layer of the pericardium. The pericardial sac was dilated and contained about four ounces of turbid serum, through which was distributed a quantity of fibrinous flakes. The heart was lying apparently in its normal position. Its weight was about fourteen ounces. It was relaxed, soft and flabby in appearance. A marked deposit of fat was observed. Veins of heart overdistended. Right ventricle dilated. Right auricle of about the size of a lemon. Pulmonic and tricuspid valves normal. The cavity of left ventricle dilated. On section, the left ventricular walls were about an inch thick. Mitral

and aortic valves normal, muscular substance soft, yielding readily to the pressure of the finger. Coronary arteries normal. Aorta thickened. The intima had lost its glistening, normal appearance, and, instead, was reddened, which coloration was not destroyed with firm rubbing with a wet sponge. Here and there atheromatous spots were plainly visible. The aorta's caliber was normal until the junction of the transverse with descending portion was reached. The carotid and innominate arteries normal. At the junction of the transverse with the descending portion of the aorta a marked dilatation was observed, and the aorta was very much thickened; this dilatation extended in a cylindrical manner for about four inches. On its outer side it had become firmly attached to the left primary bronchus and pulmonary artery, and on section it was found that the left primary bronchus with the adjoining larger bronchi and pulmonary artery were much narrowed. At the point of union with the left primary bronchus a perforation existed in the aneurysmal sac large enough to admit the entrance of the little finger, of an oval appearance, and in its orifice, projecting into the bronchus, a firm clot was found. The larger bronchi of the left lung were filled with blood clots, as were all of the smaller bronchi, which probably occurred by aspiration as well as by gravity. The right lung emphysematous, otherwise normal save for a few tender adhesions on anterior and inferior surfaces of lower lobe. Left lung adherent at apex, and also on its whole posterior surface, by rather firm adhesions which were with difficulty separated. No fluid in either pleural cavity. Upper lobe of left lung on section normal. Lower lobe entirely filled with blood, having the appearance of one immense bloodclot. The interlobular fissure was effaced. No cause was discovered for the diminution in volume of the pulse of the right radial artery, the subclavian artery appearing normal, nor for the dilatation of the right pupil; this condition of pupil, however, was only temporary, as I afterward learned from Dr. Lyons that the two continued equal. The smallness of the right radial pulse may have been due to a congenital narrowing of the artery, or a unilateral endarteritis with consequent narrowing.

Suprapubic Cystotomy.*

By R. W. Stewart, M. D, Pittsburg, Pa.

The following cases operated on by myself during the present year, and given in the order of their occurrence, will serve to show some of the conditions for which this operation is indicated, and also serve as a basis for further remarks on the operation.

Case 1. This patient was under the care of Dr. Grube, who has kindly furnished me with the following notes of the case: February 10th, 1891. J. O., age 32, furnaceman. Patient says that about six months ago he first noticed difficulty in urination, with pain in bladder and penis. This gradually passed into chronic cystitis, accompanied by pain in legs and partial paraplegia. He was treated for cystitis at Mercy Hospital. The bladder is extremely irritable, and holds scarcely an ounce, and as the slightest distension causes intense pain, it is impossible for him to sleep longer than half an hour at a time; consequently he is greatly reduced in strength. The stomach is irritable, and digestion impaired; patient living almost entirely on milk. The prostate gland is slightly enlarged, and is nodular, leading to the suspicion that it is tubercular. Patient has a brother who has pulmonary tuberculosis, and he himself has had a cough for several years, though his lungs are not perceptibly tubercular. Urine contains large quantities of muco-pus. Microscope shows pus cells, caseous flakes and debris. As patient was under Dr. Stewart's care at Mercy Hospital, I have asked him to see patient, and we have decided upon suprapubic cystotomy.

February 14th. Dr. Stewart operated as above, assisted by Drs. Ward, Patterson, Emmerling, and myself. As the bladder would not bear distension by fluid, the fundus was pushed up into wound by point of sound. A papillomatous growth was removed from near entrance of left ureter—about a teaspoonful of scrapings in all. Wound closed and bladder drained by single large drainage tube; directed daily washing out of bladder with boro-salicylic acid solution.

Feb. 20th. Patient has been given great relief from irritability of bladder, and is grateful accordingly. Urine still muco-purulent; general condition, bad.

March 10th. Wound has healed nicely around drainage tube, and patient manages drainage and washing out of his bladder himself.

April 1st. No improvement in character of urine, and patient losing ground steadily. There is occasional discharges of caseous looking pus from urethra, which evidently comes from the prostate. Tubercles have made their appearance in the cicatricial tissue about the drainage tube.

The further progress of this case was a gradual decline, until he died about the middle of May.

Case 2. Daniel R., age 54. About eight years ago he had several attacks apparently of renal colic, occuring at intervals of two months. After this there was a period of quiescence until about eighteen months ago, when he complained of frequency in passing water, the termination of the act being asso ciated with pain, which was referred to the end of the penis. Exertion of any sort aggravated the trouble, while on the contrary, rest in the recumbent position diminished it. So frequent had been the calls to urinate, and so difficult to restrain the desire, that it was necessary to wear a urinal. For about a year the patient was unable to pursue his vocation of machinist. He was referred to me for treatment by Dr. Ward.

Owing to the extreme sensitiveness of the patient and the irritability of the bladder, an examination without the aid of an anæsthetic was a matter of considerable difficulty, and required the utmost tact and delicacy. A diagnosis of vesical calculus was made and the patient sent to Mercy Hospital for operation. Accordingly, on March 15th, the patient being anæsthetized, a rectal bag was inserted and distended with eight ounces of water. The suprapubic operation was then performed, and three calculi lying side by side were removed. A drainage tube was inserted in the bladder and the wound partially closed with three silver sutures. A loose gauze dressing was applied over all.

The condition of the patient after operation was satisfactory, and was devoid of constitutional disturbance. He left the hospital on the seventeenth day

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following the operation. A fistulous opening still communicated with the bladder, which was somewhat slow in healing, but eventually it closed, and at this date patient is in good health, has full control of his urine, and is free from pain.

Case 3. Louis M., age 34, a butcher by occupation. On the evening of May 28th he stepped on a coal-hole, the lid of which turned, and he fell, the edge of the lid striking him on the perineum. He was able to walk a short distance, and then took a carriage home. On the following morning he was suffering from retention of urine, and Dr. Speer was called to see him. With a soft catheter he withdrew a quantity of bloody urine. On the evening of the same day I was called in consultation, the doctor being unable to withdraw his urine. At that time the bladder was distended, perineum tender, swollen, and much discolored, the discoloration extending to the scrotum. A diagnosis of rupture of the urethra at the triangular ligament was made, and with the assistance of Drs. Speer, Christler, and McKibben, the patient being anæsthetized, I opened the perineum freely in several places, through which a small quantity of bloody urine escaped.

A complete rupture of the urethra was discovered. Owing to the extravasation, the tissues were so altered in appearance that it was impossible to distinguish the vesical end of the torn urethra, and after a patient attempt I abandoned the search for it, and ordered his removal to Mercy Hospital. He did not enter the hospital on the following day, and as he was still suffering from retention it was necessary to aspirate his bladder in the morning and evening. On the following morning he entered the hospital, and I operated on him again. At this time the patient's temperature was 103° F., and his general condition was bad. Being again unable to find the vesical end of the urethra, I opened the distended bladder above the pubes, the incision in the bladder being just sufficient to admit a steel sound, with which I performed retrograde catheterism. The sound, after passing from within outward through the prostatic urethra, was made to project through the perineal opening. While in this situation a stout rubber tube was fitted on the projecting conical extremity of the sound, which together with the tube was withdrawn into the bladder, and the sound disengaged from the tube. The sound was then passed from before backward through the pendulous urethra, the extremity again presenting through the perineal opening. On this was fitted the end of the rubber tube which projected from the perineal opening, and the sound carrying with it the tube was withdrawn. By this maneuver a tube was inserted in the whole length of the urethra, one end being in the bladder and the other projecting from the external meatus, the central portion bridging over the torn ends of the urethra, which were separated by an interval of about three-quarters of an inch. Displacement of the tube was prevented by pinning it to the prepuce. The patient's condition improved at once; his temperature was normal on the third day. The urine drained through the tube. A slight leakage escaped through suprapubic opening. On the 8th day the tube was removed, and the patient left the hospital on the twelfth day, since which time no urine has passed by suprapubic opening. A No. 26 French sound has been passed at intervals since that date. At present the sound is passed once every two weeks to prevent the formation of a stricture at site of injury, and except for this inconvenience the patient is as well as he ever was.

Case 4. A. M. W., age 21. Ten years ago this patient was suddenly attacked with a desire to urinate frequently, which he attributed to holding his urine too long. This condition has persisted without intermission during the past ten years, passing water every twenty to forty minutes, night and day, the act being associated with violent tenesmus, and, at times, excruciating pain. The constant straining has produced a marked prolapse of the rectum, which protrudes during the act to the extent of about five inches.

Three years after the onset of this attack he became subject to epileptic seizures, which would occur about once a month, and in some manner seemed to be associated with an exacerbation of his vesical trouble. I may anticipate by saying that since the latter has been relieved the convulsions have ceased.

During the ten years he has suffered he has tried various forms of treatment in hospitals and out of them, under regulars and irregulars, besides his attempts at self-cure with the aid of patent medicines, all of which, to use his own language, did him no good, and he was waiting to die. Finally Dr. Buchanan sent him to Mercy Hospital, and he was transferred to me. The case was and still is something of a puzzle. The sound failed to shed any light on the subject. The cystoscope was also used, but nothing abnormal could be detected; external perineal urethrotomy was performed, and a digital examination of the interior of the bladder was made by Dr. Buchanan and myself, but nothing abnormal; further than a dilatation of the opening of the right ureter could be detected. Into this opening I readily inserted the beak of Thompson's searcher, which passed, without obstruction, along the ureter until it must have reached the pelvis of the kidney. In this situation the searcher could be readily turned in any direction, showing that the ureter was much dilated. While the searcher was in this situation the descent of the liver in inspiration could be readily felt pressing against the extremity of the instrument. The ureter contained about an ounce of apparently healthy urine, which escaped along the hollow instrument. A drainage tube was inserted in the perineal opening, and the bladder drained by this means for ten days. During this period the patient had comparative comfort, and for the first time in ten years he was able to sleep a few hours at a time. After the tube was withdrawn on the tenth day, the perineal opening closed, and the patient relapsed into his previous miserable condition.

The results of all these examinations showed that we were no nearer the solution of the cause of this trouble. Whether the dilated ureter was the cause, or the result of the frequent urination, we were unable to determine; one thing, however, was apparent, that drainage of the bladder relieved the symptoms, and I therefore decided to establish permanent drainage.

In this operation I was again assisted by Dr. Buchanan. A specially contrived sound, having a greater curve than the ordinary sound, and a tip on it over which a tube could be readily fitted, was used. The extremity of the instrument could be felt just above the pubes. An incision was made over it, and the instrument presented itself in the wound.

A tube was inserted over the tip of the instrument, which was withdrawn, leaving the tube in the bladder,

and a permanent drainage was now established. The patient in a short time was able to manage the tube himself, taking it out twice daily, and washing the bladder with a weak bi-chloride solution, the free extremity of the tube fitting into a urinal by day, and at night connected with a long tube which carries the urine to a vessel placed at the bedside. When last seen he had gained in flesh, could sleep without interruption, and for the first time in his life he was making arrangements to earn a living for himself.

The operation of suprapubic cystotomy has, within the past few years attracted considerable attention, and is now looked on with more favor than at any previous period. Some have gone so far as to condemn entirely the perineal route to the bladder, and assert that the suprapubic route should be used exclusively; but that this is going too far will be evident to any one who will give the subject a little attention. For temporary drainage and for digital exploration, the perineal method of opening the bladder is undoubtedly the simplest and the safest. On the other hand the suprapubic method is, in the majority of cases, to be preferred for the removal of calculi too large to be crushed; also for the removal of tumors, with the possible exception of prostatic growths, and for the establishment of permanent drainage. This operation has been hedged around with so many precautions and imaginary dangers that what is really a very simple operation appears to the uninitiated to be one of great magnitude.

Elaborate dissections have been made to show the relationship of the vesico-parietal peritoneal reflection to the operation, and the benefits of rectal and vesical distention has been urged. The dangers of urinary extravasation and hæmorrhage have been pointed out, and the advantages of Trendelenberg's position dilated upon. Regarding the much talked of peritoneum: In none of the cases that I have recorded was it seen during the operation, and in only one of them was a rectal bag used. While vesical distention was resorted to in none, though present as an accidental occurrence in Case III., the advantages of both of these have in my opinion, been more than counterbalanced by the risks incurred from over-distention in their use. A longitudinal incision was used, keeping close to the upper border of the symphysis pubis, and the bladder opened on the tip of a well curved sound, the finger being kept at the same time in the upper border of the wound to prevent displacement downwards of the peritoneum and intestines. A pair of forceps was next insinuated alongside the sound, into the bladder, and expanded so as to tear the vesical opening to the extent desired. Hæmorrhage was not troublesome in any case. No attempt was made to suture the vesical wound, nor would I recommend that it be attempted unless the opening was very large. In three of the cases the abdominal wound was partially closed with silver sutures; but in each of these cases the wound reopened on removal of the sutures so that in the future I will dispense with their use. I would recommend, however, that the incision, both in the abdominal wall and bladder, be limited to the smallest extent consistent with the requirements for operating within the bladder.

No constitutional disturbance was produced by the operation in any case, no extravasation of urine occurred, and the after-treatment consisted of frequent renewal of the dressings and washing out of the bladder with a mild antiseptic solution.

Proceedings of Societies.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Scientific Meeting, August 18th, 1891.

T. D. Davis, M. D., President, in the Chair.

A paper on Suprapubic Cystotomy was read by Dr. W. R. Stewart.

Dr. Buchanan: I am very well acquainted with the history of the fourth case reported by Dr. Stewart, and I think the doctor deserves the greatest credit for the way in which he followed up the treatment. The case was a very mysterious one, and yet remains so. There was no obstruction of the urethra. There was no active cystitis. There was no disease in the kidney, or in the pelvis of the kidney as far as could be discovered. There was nothing to give rise to the dilatation of the ureter, the enlarged outlet of which could be felt very plainly with the finger through the perineal incision and demonstrated with the sound, except the constant contraction of the bladder. The opening of the bladder for permanent drainage above the pubis was an entirely arbitrary matter, not based on anything except the fact that during the time at which the bladder was open below, the patient was relieved from pain. For this reason I think Dr. Stewart deserves the more credit for following up that hint and doing this operation without any other indication; an operation which has certainly proved very successful. The man was in a wretched condition; the contractions of the bladder were so painful as to make him cry out; he could not stand still when passing his water, and there was very extensive protrusion of the rectum.

Dr. Macfarlane: I have nothing to say except to compliment the doctor upon the manner of presenting his cases. There is one feature about the one case in which I cannot help but admire the manner in which he treated it. The case is the one in which he had rupture of the urethra. Now anybody who has ever attempted to do anything with rupture of the urethra, knows the difficulty connected with it. I have on two occasions seen men of ample experience spend two hours or more before being able to unite the urethra; on another occasion an hour and a half was spent with lack of success, the work being left to be completed at a later time, the man being, in the interval, in a precarious condition. Now, the doctor's method of treating that, I think, deserves widespread circulation, for it certainly acted very well indeed, and affords a very happy escape from the great difficulty connected with a case of rupture of the urethra.

Dr. McKennan: I have a specimen which may be of interest to the members of the society. It was sent to me by Dr. Ray Grayson, of Washington, Pa. It is a congenital malformation of the rectum. The rectum ends at the base of the bladder. It is interesting on account of the fact that we very seldom get a *post-mortem* in cases of this kind, and it represents a type of cases not at all uncommon. An examination of the rectum here discloses the fact that there is peritoneum connecting the rectum with the bladder. The rectum enters directly at the base. Some times the rectum enters the bladder at the vertex. After an examination is made, it will be seen that the peritoneum sur-

rounds the entire lower part of the rectum running from the bladder directly to the rectum and surrounding it. This case represents one of a type of these cases of congenital malformation of the rectum which vary from occlusion of the anus to complete absence of the lower bowel. It is said that congenital malformations of the rectum and anus occur about once in every 5,000 deliveries, although some observers state that in statistics of 66,000 cases of delivery, congenital malformation of the rectum and anus occurred only three times. Other observers, however, state that congenital malformations do occur as often as one in every 5,000. To my knowledge, quite a number of cases have occurred around here. It is obvious from the malformation here that operative procedures were hazardous. An attempt in this case was made to reach the rectum but failed. The diagnosis was properly made of entrance of the rectum into the bladder by the appearance of the fæces in the urine. The operation, I believe, was made on the patient on the 17th day, and the patient lived until the 26th day.

Dr. Stevenson: I have seen three cases of imperforate anus; in one of the cases the rectum terminated in the bladder. In that case there was an attempt made to reach the rectum, but it failed and the child died. In two other cases I have seen, the rectum was reached, and the method pursued was passing up a hypodermic needle and withdrawing the fæces and cutting up alongside of the needle, and the rectum was reached and drawn down and the opening stitched. These children both recovered, and had no trouble with their bowels.

Dr. Stewart: It seems to me that in this case a suprapubic cystotomy would have been proper, and would have given relief.

Dr. Buchanan: I think a very much better way would have been to open the sigmoid flexure of the colon; that can always be reached. It would be very much better to drain the fæces out by an abdominal fistula than through the bladder.

Dr. McKennan: I find that operations in cases of this kind have never been successful. Operations have been done, some operators opening the perineum, cutting into the bladder and thence making a cut clear through the opening of the rectum into the bladder, making thus a large wound into the perineum. But this method of procedure either produces peritonitis or it causes a fistulous opening in the perineum, which greatly contracts. The only operation which can be done with safety is that suggested by Dr. Buchanan, and that is the operation of colotomy. I find that in malformations of the anus and rectum, that in which the rectum enters the bladder occurs in about forty per cent of all malformations.

GENERAL DISCUSSION ON SURGICAL JOINTS.

Dr. Murdoch: I am not exactly clear as to what is meant by surgical joints. I suppose it may be joints liable to disease or injury, or that might come under the care of the surgeon, but in that case it would properly include every joint in the body, for there is no joint that might not require surgical treatment; therefore I do not like the term wholly. I suppose, however, reference is intended to be made to those joints which more frequently come under the care of the surgeon, either for disease or injury, and as that would be so much as to include the whole subject of tuberculosis and all kinds of injuries to the joints, I am not able or willing, and if I were there would not be sufficient time, to discuss the subject as a whole. It might be said, however, that there have been great changes in the surgical treatment of joints within a comparatively few years, as you are all well aware. This has arisen in a great measure from the fact that because of the great improvements in surgery since the introduction of antiseptic treatment of wounds the joint can be invaded and dealt with with so much less risk than formerly. That is one reason. And it seems to be a sufficient reason in the minds of a great many surgeons, that simply because joints can be got into and incised or scraped out, that is a good reason for doing it, and of course this must enter into the problem of whether such an operation should be done. Another reason why the joints are more frequently treated surgically now than formerly is owing to the changed views with regard to the chief disease which attacks the joint, namely, tuberculosis. Without entering into a discussion of the pathology of that disease, we are all, I believe, convinced that the former ideas with regard to it were not correct. I think we all believe now that it is an infectious disease and is not always inherited from the parent. We believe the trouble is usually of local origin, and there is a local focus from which the disease starts, and it is in that view, I think, that a great many operations are now done by surgeons who would have formerly looked with doubt upon the idea that the local focus of the tubercle can be taken away before it has found localities in other parts of the body. In my recent visit to Europe, both in Ireland and Scotland I saw surgeons there opening into the joints in cases where I am sure nobody here in the United States would think of operating upon, nor do I believe they would be permitted to operate. I saw the joints of young people opened where there were none of the aggravated signs which we look for here, with a view of excising this local focus which it was believed existed either in the bone or in the joint. I saw, for instance, a surgeon, Dr. McEwen, of Glasgow, operate on a child about fourteen years old, able to walk without much limping, but afflicted with what we call the first stage of hip joint disease. I saw him cut into the joint and remove the head of the femur.

In Ireland I saw a surgeon operating by what they call there an anterior procedure. In these operations they did it in the first state of disease, before the disease had extended and made much or any destruction of the joints, but they do this operation on an entirely different principle from what I have been in the habit of seeing. They do it with the least possible violence to the joint; the head of the bone is not thrown out of its position. In both of these operations, Dr. McEwen did his operation posteriorly, making the usual incision from the crest of the ilium down from the joint, a short incision, and then introduced his chisel through an opening not over an inch and a half long, and by its manipulation much pressure and lateral motion, he was able in a very short time to cut off the head of the bone, and then introduce his finger and extract the head. As I said before, I do not believe this would be permitted in our country. We see so little of joint diseases here, tubercular diseases compared with what I saw in Ireland and Scotland. This is accounted for by the fact that the patients are not so well fed there. Among the poor in Scotland, the number of young people with joint disease is remarkable. Now, as I said before, I do

not expect to be able to treat all of this subject, and I must say that I have had very little experience in the treatment of any of the joints, excepting that of the knee. I have had some experience in that, and have excised the knee some eight times, I think, and with seven successful cases. My friend, Dr. King, at the West Penn Hospital, has perhaps excised more, and has lost but one patient. I wish to speak of the difference between present practice and that in vogue when I was a young surgeon. I know of no subject which shows the great improvements that have been made in surgery more than this one of the manner in which the joints can be opened. During our late war, for gunshot injuries of the knee joint there were fifty-seven operations performed, and of these fifty-seven, forty-four patients died. Mr. Otis, in his report of our late war, states that previous to the war there were some eighteen excisions of the knee joint, of which sixteen were fatal. Now, the operation of excision of the knee joint is one that is almost universally successful, that is, the patient seldom dies under the operation, and it usually results in a useful limb. In Ireland, where they do this operation a great many times, with great success, I was shown at the Richmond Hospital some twelve cases that Dr. Thompson had in the hospital under recovery. He told me he had done the operation forty times, with only one death, so that no doubt the operation is one recognized as proper, when formerly amputation would have been in all these cases considered the proper course.

When I look back upon my practice, even as late as when I became surgeon of the West Penn Hospital, within twenty years, I can remember patients who lay there for a year or two years with white swelling, as we called it, and eventually perished. I have seen some of these cases amputated, and I have seen several of them succumb simply from the confinement and the inability of the doctors to do them any good. Now these cases would not be permitted to stay there two weeks before some surgical operation would be performed for their relief. As you know, a local focus exists in tuberculous disease; it may be necessary to incise the joint, but in other cases, when only the synovial membrane is involved, the operation of arthrotomy may be performed; opening the joint up widely and dissecting out the entire synovial membrane and scooping out with a gouge any local focus that may be found. The disease I do not believe ever commences in the cartilage. I desire, however, to state at this time, and it is probably all that is necessary for me to say to you to show the method that Dr. Thompson uses to the knee joint, after having opened it, that this is much superior to anything that I have seen, although it is a good deal like the apparatus which I use myself. I have brought it with me and will show it to you. In operating on a knee joint, they are in the habit of making what is called the horseshoe incision. This is made by commencing well back, and carrying the knife downward and upward across to a corresponding point on the opposite side, the joint opened, and if it is only desired to perform arthrotomy, the whole of the membrane is scraped with a scoop and cut away, with the scissors, and then the flap is replaced. But if, on the other hand, it is desired to perform excision of the joint, the bones are cut off and fastened together with nails and a splint. The design of those who operate by cutting parallel with the articular surface is to leave the limb at the same relative angle. Dr. Thompson and those surgeons who have had the most experience in operating tell me that is not the proper way to make the section of the femur; he makes the section of the femur at right angles with its axis, so as to make the leg perfectly staight, as it is in the normal leg. I am inclined to believe that is the better way.

I will not go into the manner of cutting the bone, as the surgeons all know that as well as I do. The best way of fixing the limb, that is the important part of the operation. I presume part of the success of this operation in recent years has been owing to this fact. Older surgeons had been in the habit of using wire and other appliances, which did not accomplish the purpose very well. I believe the idea of doing anything to keep the parts in apposition originated in Germany, by the use of steel nails driven with a mallet into the bones. I do not think that was as good a means for keeping the bones in place as the one suggested by me. In Ireland they use silver pegs about an inch and a half long, after making a hole with the brad awl. The nails which I use are four and a half inches long for an adult. They are made for me by Mr. Helmold, and according to the pattern of Mr. Wyeth. The nail should be tapered so that it binds as it proceeds. Three nails should be used. Then hold the bones in perfect apposition with the assistance of the external apparatus. The apparatus which Dr. Thompson uses, and which I think is the best way to hold the limb steady, is made from common hoop iron, an inch and a half wide. This is easily manipulated; it is simply wrapped around with a bandage over it to hold it in place, an anterior and posterior splint. The posterior splint is put down around the ankle joint and up on the foot, the anterior one leaving a space for the dressing over the knee joint, and after the operation it is not disturbed for three weeks, unless the elevation of the temperature is over 100° F. There is a drainage tube put in across the joint behind the bone, well down, and usually it is a very successful operation. I could relate some of my cases, but I will not trouble you with that; the time is passing. I will, however, mention a case that I operated upon at the West Penn Hospital. A man 47 years old, a miner, suffering with disease of the joint. Although in this case I feared the operation could not be very successful, the man made a remarkable recovery. He walked into the operating room four weeks after the operation with a cane, and left the hospital in eight weeks. He had been suffering for two or three years. I received a letter from him three months after he left the hospital. He said: "With the greatest of pleasure I let you know that I am walking without crutch or cane. It was on the 5th of February that I walked. I was very much surprised at myself when I did it. From the day that you operated on my knee until the day that I walked was four months and eighteen days. How is that for an old man? Therefore, I thank you most respectfully for your skillful operation on me."

The joints in which operations are the most useful and in which the surgeons now have the most experience and have done the most benefit are the knee, the hip and the elbow. Excision of the elbow for injury is a most successful operation; so is excision of the knee. But I will say, as I said in the beginning, that there are many surgeons who think that because excision of the joint is done with such safety there is a good reason for doing it. It should always

be remembered, especially by the young surgeon, that an excised joint is an admission on the part of the surgeon that he is not able to cure it. As our knowledge of tuberculosis advances, and we are able to treat tuberculosis successfully in the lung, we will be able to treat it successfully in the joint, and operative interference will not probably be essential then. It should never be forgotten, as the very first principle in the treatment of all joints, that the first consideration is rest, putting the parts at rest. If joints can be kept still even where there is a local focus of tuberculosis, if they can be kept still, and proper hygienic measures resorted to, many cases will never call for aid from the surgeon. I believe the improvement in the treatment of disease rests in an early diagnosis, and early treatment. Having said this much, with little regard for order, I leave the matter in your hands.

DR. DAVIS: The term surgical joints has been used to describe joints that call for surgical interference.

DR. STEVENSON: I have never made claims to being a surgeon, but have been so situated that I have had to do a little surgical work. I practiced for twelve years in Westmoreland county; I was medical man, surgical man, obstetrical man, and so forth. I had charge at the time of the Penn Gas Coal Company's works, which employed some seven hundred men, and I necessarily saw a good deal of injury. I think the first case I saw after I opened the office was a compound fracture of the ankle joint, with dislocation of the tibia. After cutting, and having two or three men exert all the strength they could, I could not get the tibia returned into the joint, so I found a meat saw and sliced off about a half inch and got it reduced, and that man is walking about to-day.

I saw not long after that a carpenter doing something with a foot adze, the corner of the adze striking him just over the joint, and penetrating the joint. When I saw him the synovial fluid was exuding. This being before the era of antisepsis it ended in an amputation about four inches above the knee joint. The man got well with the loss of the limb. I have no doubt the improved methods of treatment would have saved that man's leg. I saw another case which was probably a tuberculous joint. It seemed to start without any known cause, and after continuing quite a number of months, the joint suppurated and I found it necessary to amputate above the knee. That man was not so fortunate as the other, his general health gave way and he died, although the stump had healed and done fairly well. One of the first important things is the diagnosis. What have we? Now in joints, we have a great many structures, there is bone, there is cartilage, there is synovial membrane and ligaments and the surroundings. Any or all of these may be involved, or none of them may be. We have what is called simulated disease in joints the same as we have simulated diseases of other organs. We may have a mimicry of disease in a joint, and this may simulate almost anything. It is a very important matter when a surgeon or practitioner is called to a lady, nervous, of inherited tendencies, want of stability, easily excited mentally, and finds that she is complaining of severe pain in the knee. You look at the joint, you see it is swelled; she says she can not use it, you attempt to use it, she screams out with pain. No doubt it is very important to determine whether it is a hysterical joint.

The constitutional history of the patient may decide this, but if you have an inflammation of the knee joint, you will have local heat. Possibly, you will have constitutional heat. If you feel this joint and it is cool or clammy, and you take the temperature of the patient, and you find there is no fever, there is strong ground for suspecting that you have no chronic trouble in the knee joint.

DR. BATTEN: In speaking of operations for joint diseases I will not go into a discussion upon surgical treatment. I believe it has been established that these diseases are of a scrofulous nature, and it was believed that that was a fact up to the time that Koch discovered his bacilli. Since that it is believed that the tubercle bacilli caused all these conditions of the joint, and that they are not hereditary. There is a question in my mind whether they are not hereditary. I believe the bacilli can be carried from the mother, a phthisical mother or a scrofulous mother, to the infant. However, that is a question. But there is one case I know in which an operation was not performed. It was a boy about ten years old, whose parents were living. He had what was called white swelling or inflammation of the knee joint. He was placed under the care of a great many physicians or surgeons, but there were no operations performed, and he finally recovered from this condition, and is at the present time using all the joints and is an active, healthy man. I would say, however, that Dr. Murdoch is deserving of a great deal of credit for the manner in which he performs these operations, and the success that he has had in giving relief to the patients upon whom he operates.

DR. KŒNIG: In surgery, I think we all admit, cleanliness ranks superior to godliness. In view of the recommendation that Dr. Murdock has made of a certain instrument—the little household utensil with which he inserts his nails—it seems to me that we must accord him greater godliness than cleanliness. With his well-known ingenuity he should be able to construct some appliance capable of being made aseptic, after which he would have no occasion to recommend the use of an instrument as crude as the one he has shown us.

DR. LANGE: I have recently seen a few surgical joints. I will relate one or two cases. A boy about eight years old while playing on the carpet screamed, said he had hurt his knee, and when his mother got it uncovered, she found on the most prominent part of the knee a single drop of blood, which was wiped away, and the little fellow moved around the house, but limped. His mother instituted a search for needles and found half a needle with the thread in its eye. The accident did not seem to trouble the little fellow much until the third day. Although there was no swelling and very little heat, there was a good deal of pain, and when called, I considered it probable a piece of the needle was in the joint or about the joint and that it would be the proper thing to anæsthetize the boy and attempt to remove it. This was done, a careful search was made for the piece of needle for more than an hour and a half. The joint, however, was not entered. After that, the little fellow was put to bed and his limb on a straight wooden splint; he was kept in that way two weeks and then allowed to get up. He was up about a week and was again siezed with pain, and this time a distinct fullness of the joint. The four depressions at the four corners of the patella had disappeared and were replaced by four convexites which fluctuated.

The leg was put in plaster and all motion of the knee joint was prohibited by the plaster for three months. Then the plaster was taken off and the boy beginning to be active, there was again a slight swelling of the joint, and the plaster was reapplied and kept on for a couple of months more, and then taken off; and finally we saw the end of that surgical joint. The needle has, in all likelihood, become encysted, and will likely do no more harm. The other case was that of a boy riding his velocipede and falling with it. He was picked up and carried home, and when his doctor saw him he concluded he had a dislocation of the femur, because the leg was fully an inch and a half or two inches longer than the other, and because it was rigid, immovable and painful. The doctor chloroformed him, and attempted to reduce the dislocation, and thought he had succeeded. He applied a bandage to the boy's thigh and pelvis, and put him to bed, and the boy complained very little for two or three days. After this the doctor took off his bandages, examined the limb, and found it was fully two inches longer than the other. It was then I saw the boy, and examined him under chloroform as the doctor had done. The curious part of the case was that when the boy was anæsthetized his limb was the same length as the other, and it was evidently not dislocated; but when the boy came from under the influence of the anæsthetic, the limb lengthened two inches. The parents sent for additional counsel, and the last medical gentleman called in concluded that the boy had hip joint disease. We could not make a diagnosis, allowed that to go, and put the boy to bed.

He was kept there two or three days, then got up and walked, and had no pain nor deformity. On a later occasion when I saw him he complained of pain, and again his leg was apparently two inches longer. We examined him very carefully, and we found that this was a simulated disease, that as my friend, Dr. Stevenson, has characterized it, it was an hysterical joint, and that the lengthening was not between the pelvis and the femur, but was produced by muscular tilting of the pelvis. The length from both anterior superior spinous processes, to corresponding points below, was always the same, even when the leg projected two inches beyond its fellow. On the other hand, a line from one anterior superior spinous process to the other is not at right angles with the body, but two inches lower on the side where the leg seems longer, This boy is now actively about, painless and straight; but when he is cross, willful, or disappointed, he complains of his hip, tilts his pelvis, and lengthens his leg.

DR. GREEN: Dr. Lange's case reminds me of a surgical joint with which I have had some trouble. The patient, whom I have been called to see many times, has the power of dislocating the lower jaw. She is a girl of nine years; she has always been notorious for will power. Her mother told me that from childhood whatever she asked for had to be given her. She would say: "If you don't give it to me I'll stretch," and immediately, were the request not granted, the child would begin to "stretch," and open her mouth just as wide as she possibly could, until her jaws would slip out. I have known some persons who frequently had dislocations of the lower jaw, but in no other case have I seen a person who could willfully, maliciously bring about this condition of affairs by stretching, and this boy of whom Dr. Lange has spoken reminded me of the spoiled child who "stretches."

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

Preliminary Announcement of the Programme

For the Seventeenth Annual Session of the Mississippi Valley Medical Association, to be Held in St. Louis October 14th, 15th and 16th, 1891.

1. "The Toxic Effect of Tobacco Vapor; with Report of Cases." W. Carroll Chapman, M. D., Louisville, Ky.
2. "The Management of Chronic Diseases." S. Baruch, M. D., New York, N. Y.
3. "The Ethics of Curing Consumption and other Chronic Diseases." John Ashburton Cutter, M. D., New York, N. Y.
4. "The Treatment of Typhoid Fever," Robert C. Kenner, M. D., Louisville, Ky.
5. "The Carbolates." William F. Waugh, M. D., Philadelphia, Pa.
6. "On Degenerative Processes in the Spinal Cord, Consequent upon Constitutional Diseases." Hugo Summa, M. D., St. Louis, Mo.
7. "Iliac Indigestion—Intestinal Dyspepsia—and its Treatment by Antiseptic Agents." Frank Woodbury, M. D., Philadelphia, Pa.
8. "The Influence of Graveyards on Public Health." J. W. Carhart, M. D., Lampasas, Texas.
9. "Rheumatism and Gout in their Casual Relation to Eczema; their Management." A. H. Ohman-Dumesnil, M. D., St. Louis, Mo.
10. "The Value of Epilation as a Dermato-Therapeutic Measure." Joseph Zeissler, M. D., Chicago, Ill.
11. "Gradation of Lenses." Dudley S. Reynolds, M. D., Louisville, Ky.
12. "The Influence of Alcohol on Vision." Francis Dowling, M. D., Cincinnati, O.
13. "Tobacco and Insanity." Ludwig Bremer, M. D., St. Louis, Mo.
14. "The Present Aspect of Cerebral Surgery." Landon Carter Gray, M. D., New York, N. Y.
15. "Forensic Aspect of Bruises and Fractures in the Insane." J. G. Kiernan, M. D., Chicago, Ill.
16. "Amputation of the Scrotum, with Report of a Case." B. Merrill Ricketts, M. D., Cincinnati, O.
17. "Observation on Urethral Stricture." G. Frank Lydston, M. D., Chicago, Ill.
18. "The Mechanical Element in treatment of Compound Fracture." Warren B. Outten, M. D., St. Louis, Mo.
19. "A Report of a Case of Retention of Urine caused by Multiple Urethral Calculi." J. V. Prewitt, M. D., West Point, Ky.
20. "Some Observations on Rectal Surgery in Europe." Leon Straus, M. D., Louisville, Ky.
21. "A New Method of Diagnosing Obstruction in the Sigmoid Flexure." Jos. M. Mathews, M. D., Louisville, Ky.

22. "Pathology and Surgical Treatment of the so-called Strumous Inguinal Lymphadenitis." L. T. Riesmeyer, M. D., St. Louis, Mo.

23. "The Treatmeut of Gonorrhœa." E. C. Underwood, M. D., Louisville, Ky.

24. "Extirpation of the Thyroid. with Report of Case." Emery Lanphear, M. D., Kansas City, Mo.

25. "Are Conservative Amputations always in the Interest of the Patient?" Charles Truax, Chicago, Ill.

26. "Sarcoma of the Dorso-Scapular Region—Operation—Recovery." George N. Lowe, M. D., Randall, Kansas.

27. "Mouth Breathing." Eric E. Sattler, M. D., Cincinnati, Ohio.

28. "Empyema of the Superior Maxillary Antrum, with only Nasal Symptoms." Hal Foster, M. D., Kansas City, Mo.

29. "A Superior Remedy for Nasal Catarrh; Campho-Menthol." Seth S. Bishop, M. D., Chicago, Ill.

30. "A Case of Reflex Aphonia; Demonstrated to be due to Pressure of the Middle Turbinated against the Septum Nasi." Hanau W. Loeb, M. D., St. Louis, Mo.

31. "Importance of Recognizing a Temporary Rachitic Condition in Infants." John A. Larabee, M. D., Louisville, Ky.

32. "A Pathological Study of Pelvic Inflammation in Women." Wm. Warren Potter, M. D., Buffalo, N. Y.

33. "Observation on the management of Uterine Tumors." Chas. A. L. Reed, M. D., Cincinnati, Ohio.

34. "Complications Following Abdominal Section." Rufus B. Hall, M. D., Cincinnati, Ohio.

35. "Obstetric Dispensaries; their Management." L. A. Berger, M. D., Kansas City, Mo.

36. "Surgical Treatment of Peritonitis." A. V. L. Brokaw, M. D., St. Louis, Mo.

37. "Temperature no Guide in Peritonitis." H. C. Dalton, M. D., St. Louis, Mo.

38. "Some Monstrosities at and after Birth." David S. Booth, M. D., Belleville, Ill.

39. "Oophorectomy *vs.* Donothingism." Willis P. King, N. D., Kansas City, Mo.

40. "A Successful Gastrostomy for Impermeable Stricture of the Cardiac End of the Œosphagus—Subsequent Dilatation of the Strictures." Arch. Dixon, M. D., Henderson, Ky.

41. "The Nervous Equation of Pelvic Inflammation." Geo. F. Hulbert, M. D., St. Louis, Mo.

42. "Hysterectomy for Cancer." J. M. Richmond, M. D., St. Joseph, Mo.

43. "The Application of the Obstetrical Forceps." John Bartlett, M. D., Chicago, Ill.

44. "Appendicitis." W. H. Link, M. D., Petersburg, Ind.

45. "Phthisis—Beginning its Treatment." Edward F. Wells, M. D., Chicago, Ill.

46. "The Hydrotherapy in Typhoid Fever." H. H. Middlekamp, M. D., Warrenton, Mo.

47. "Hystero-Epilepsy." Howell T. Perching, M. D., Denver, Colo.

48. "Importance of Definite Strength in Mineral Waters." Geo. F. Hulbert, M. D., St. Louis, Mo.

49. "The Time and Place for Stimulants." Chas. H Hughes, M. D.

Regular classified programme will be issued and sent to members and the profession generally at an early date. Titles of papers must be sent to Chairman of Committee of Arrangements before October 5th, 1891.

I. N. Love, M. D., Chairman
Committee of Arrangements.
Grand and Lindell avenues,
St. Louis.

E. S. McKee, M. D., Secretary.
C. H. Hughes, M. D., President.

American Public Health Association.

The 19th annual meeting will be held at Kansas City, Oct. 20th to the 24th, 1891. The local committee of arrangements announces that all the railway passenger associations of the country have granted a one and one-third fare rate for the round trip on the usual certificate plan, that is:

1. Procure a certificate of attendance from the agent at the starting point by paying full fare to Kansas City.

2. Have the certificate of attendance signed by the proper officer of the association at Kansas City. This certificate will then procure return ticket for one-third fare. All the leading hotels of Kansas City will give special rates to delegates. Arrangements are being perfected for an excursion into Kansas, as one of the features of the entertainment of the association. For any information as to the meeting, address Dr. E. R. Lewis, Chairman,
or Dr. Joseph Sharp, Sec'y.,
Local Com. of Arrangements, Kansas City, Mo.

The Perils of Football.

The following article is taken from *The Lancet* and is certainly true, not only as regards the youths of England, but America as well. We give it in full:

During the football season that has just concluded scarcely a week has passed in which we have not recorded more or less serious accidents which have occurred at the game. It is necessary to point out that we have in no way made any special effort to obtain a complete roll of the casualties that have happened to football players. We have recorded them as we have chanced to come across them in the columns of the daily and weekly newspapers which come under our notice in the ordinary routine. There is little doubt that if we had consulted the pages of our sporting contemporaries, and taken other means of ensuring that our list should be an exhaustive one, and inclusive of minor casualties, it would have been multiplied at least twentyfold. There can be no question that these accidents (which are too often caused by unnecessary rough play, and sometimes, it would seem, almost a malice prepense, players being told to "stop" a good man of the opposite side) have of late years increased enormously in numbers. It would also appear that they have, as the game has attained greater and greater popularity, become of a much more serious and fatal character. Among the casualties we have recorded are twelve cases of death directly attributable to injuries received in football matches: "Asphyxia caused by paralysis of the muscles of respiration"; "acute peritonitis consequent on injuries received while playing in a match"; "injury to the brain"; "rupture of the intestine"; "rup-

ture of the right kidney"; "abdominal injuries" are given as some of the causes of death. It is unnecessary further to particularize. We have said enough to show that this game has, unfortunately, dangers far exceeding those encountered in other forms of amusement. We shall, of course, be told that serious accidents occur in the hunting field, out shooting, at cricket, and at other games. This there is no denying, and we would be at no pains to attempt to deny it; for risk must accompany us all our lives, and every moment of them, and we are not disposed to make much of the little additional risk that is run in healthy and reasonable forms of sport. Football, however, stands almost alone as regards the *causation* of its accidents, which are nearly invariably the result of personal encounter with players of the opposing side, and it is this element of personal conflict which we chiefly deplore. It must never be forgotten that it is often the breadwinner of the family who is incapacitated or killed, and that much misery and suffering are thereby indirectly inflicted. We need not now stop to consider which form of football is the more perilous; there is not a great deal to choose between them, though doubtless the Rugby Union game is responsible for more internal injuries than is that of the Association. Football should be an admirable game and an excellent means of vigorous and wholesome exercise. Indeed, there is no real reason why so desirable a consummation should not be attained. It lies in the hands of the respective authorities of the two games, and more especially of the referees and umpires. It is stated that these latter have been a great deal more severe during last season. We trust that they will much further increase their severity and their vigilance, and so remove the impression which widely, and, as it appears to us, not undeservedly, prevails, that a very considerable amount of wholly unnecessary roughness and danger attend football as at present played. We have more than once expressed our opinion that the game is one capable of doing a great deal of good in the way of affording exercise and recreation to countless young men. Let the referees and umpires and other, perhaps more responsible, authorities see to it, and afford more guarantee that the good football is not overbalanced by its accompanying perils.

Fractured Ribs in the Insane.

The words heading this paragraph are the title of a highly instructive memoir by Dr. Claye Shaw in the new volume of the *St. Bartholomew's Hospital Reports.* He observes that nothing gives so bad an impression of the management of an asylum as the occurrence of fractured ribs amongst its inmates. Hence he endeavors to throw some light on the pathology of broken ribs in the insane. He has made experiments, and tabulates the weight required to cause fracture of the rib, and the seat of the fracture. He concludes that a considerable difference is found to exist not only in the weight of the ribs on the two sides of the body, but also in the average breaking weight. The lighter rib is often found to bear the heavier weight, and there appears to be no proportion between the weight of the rib and the number of pounds that it is capable of sustaining, whence it would appear that physical conditions of structure have no more to do with the strain-resisting power than chemical change. Persons suffering from disease of the heart or blood vessels bear less strain than others. Persons suffering from advanced constitutional disease, such as phthisis, may have ribs that support a strain much above the average, and hence there is no direct relation between constitutional strength and that of the ribs. When a blow causes fracture, this is dependent not so much on the weight of the rib and its power of bearing strain as on other conditions. Altogether the idea that the ribs of the insane are more brittle than those of the same is true only to a very limited extent, and is almost confined to those affected with degeneration of the circulatory system. Dr. Shaw rightly notes that he has not had the opportunity of testing the breaking weight of the ribs of general hospital patients. Attendants at asylums, he observes, knowing the penalties, are very careful not to give violent blows when patients are in such a position that the natural elasticity of the ribs can act, and that, even if they did, such blows would not cause fracture. Whether the person be sane or insane, a slight blow given when the body is in a certain position will cause fracture, and when that does occur, it is more often than not done accidentally.—*Brit. Med. Jour.*

Abstracts.

Surgery.

Successful Case of Œsophagotomy for Removal of a Tooth-Plate Impacted in the Œsophagus for Five Years and Nine Months.—W. Furner, F. R. C. S. *The Lancet.*—A woman, age forty-four and the mother of a family, entered hospital, complaining of a difficulty in swallowing which she had experienced since some five years before when, in the act of turning in bed, her tooth-plate slipped from its position in the upper jaw to the back of the throat. She could only take liquid food, occasionally thickened with bread crumbs, or minced meat.

A probang passed down the œsophagus ten inches and a half seemed to touch the obstruction, but it was impossible to move it, as traction only tilted the plate into the surrounding tissues. A pair of long œsophageal forceps caught the body firmly, but finally slipped off and could not be again used.

About two months after, she was again admitted to hospital and œsophagotomy performed, the usual incision being made, about three inches in length, along the anterior border of the left sterno-mastoid muscle. The omohyoid muscle was divided. The carotid sheath having been drawn outward and the trachea and thyroid gland in the opposite direction, the œsophagus with the recurrent laryngeal nerve on its surface was then exposed; a full sized bougie was passed through the mouth down to the obstruction, and the œsophagus opened on its posterior surface. The foreign body was lying somewhat obliquely to the canal of the tube, the upper part projecting into it, and the rest of plate lying in a sac to the right of the gullet. Considerable difficulty was experienced in the removal, but it was finally grasped by a strong straight pair of forceps, and by rotating and pulling it was accomplished. A very small amount of hemorrhage followed, and the wound was well washed out with weak carbolic lotion, one small artery to the sterno-mastoid requiring ligature, but the œsophagus was not sutured. A drainage tube was inserted and placed in the lowest part of the external incision, and but slight shock fol-

lowed the operation. Four ounces of pancreatised beef was administered by rectum.

At the expiration of three days the wound showed no signs of healing and the patient was losing ground, so an attempt was made to introduce food through a No. 8 gum elastic catheter into the stomach. This produced considerable retching and the milk returned through the wound, so this method was abandoned for two days, when another attempt was made to pass food through the mouth with a small catheter, but with no better success than before. The wound was now covered with a grayish exudation, the whole side of the neck down to the clavicle in front and to the level of the spine of the scapula behind, being red and puffy.

The evening of the fifth day from operation, it was again determined to make another attempt to introduce food, but by the natural way, so the woman was lifted up and supported in bed, and given about ten ounces of milk, which she drank ravenously, only about a teaspoonful coming through the wound, and this was immediately syringed out. From this time on she took food and although the wound discharged quite copiously, the redness and puffiness soon subsided. Twenty-one days from operation she was able to swallow bread and milk, and in twenty-eight days from date of operation the wound was healed and the patient discharged.

Rare Form of Hydatid of the Liver treated by the Cautery.—F. W. Robinson, M. B., M. R. C. S. A young man of rather slim proportions and twenty-four years of age was attacked with severe abdominal pains about a week before he presented himself for attention. He stated that he had noticed an enlargement of the abdomen, but thought nothing of the fact, feeling well. The pain was felt mostly over the region of the left hypochondrium, lasting some hours, and when occurring at night, would keep him from sleeping. An examination showed his organs to be healthy, but the tumor in the abdomen was very extensive, extending on the right side as low as to within an inch of the crest of the ilium. From this point it stretched obliquely across the abdomen to the left hypochondrium, disappearing behind the left lower ribs, which were pushed forward considerably. In this course the tumor crossed two inches below the umbilicus. On the left side in front it extended as high as the fourth rib, the heart's apex, beating in the third intercostal space a little to the left of the sternum. On the right side in front it was continuous with the liver dullness. Behind on the right side the ribs were more prominent than on the left, and there was dullness from the angle of the scapula downward to within an inch of the crest of the ilium. On the left side below there was no dullness, and the respiratory murmur was normal. Auscultation revealed no friction sound, and there was no fluctuation at any part. The pain becoming so severe the patient was confined to bed, any movement giving him great uneasiness.

An incision about four inches long being made from the xiphoid cartilage downward, the tumor exposed and the cyst wall incised to the length of the abdominal incision, several ounces of clear, limpid fluid escaped. The walls of this cyst were about an inch in thickness, quite hard, and as large as a closed hand. There was considerable hemorrhage, which was controlled with sponges. Passing the hand into the peritoneal cavity the sharp anterior edge of the liver could easily be felt, and rising from its upper surface immediately above this a smooth, globular, hard mass extended over all parts adjacent. A curved rectal trocar was pushed through the right wall of the cyst in a direction downward and outward, and several ounces of clear fluid drawn off. As the patient showed decided signs of collapse from loss of blood, the operation was concluded by washing the peritoneal cavity out, and stitching the cyst wall to the abdomen. A severe attack of peritonitis followed this operation, but subsided in a week's time under treatment.

Improvement continued for two weeks, when patient again experienced pain which was thought to be due to suppuration in the cysts, caused by septic infection through the opening made in the previous operation, by the trocar, but which had now almost closed, so a larger trocar was passed into the channel, the pus liberated, and the passage forcibly dilated with forceps. After this, improvement was marked for several days, when it was decided to open a passage through the tumor by using the cautery. This was done, and six cysts opened allowing a large amount of pus to escape. The progress of the case from this time on was one of uninterrupted improvement, although suppuration continued to be very profuse for about two weeks. The lining membrane of cysts was detached in long shreads of slough, and after this suppuration ceased.

Removal of Piece of Lead Pencil From the Thigh of Child Thirteen Years Old.—C. H. Powell, A. M., M. D. *St. Louis Med. and Surg. Jour.*—This child while returning from school slipped and fell on her right side, and although experiencing considerable pain, she walked home about one block. Upon examination there was found a hole in the skin, about two inches below the anterior superior spinous process of the crest of the ilium, and a little over an inch from this hole there was a movable body, which at first conveyed the impression that there existed a compound fracture of the neck of the femur, but careful examination of leg affected, failed to establish this.

A probe now being passed through the opening to the foreign body it was found impossible to remove it through the original wound, so the little patient was placed under the influence of chloroform, and a free incision made, laying open the sinus. The body was found, lying antero-posteriorly with its point turned toward the buttocks, and as its head was buried in the sheath of the rectus muscle, this was slit up and a piece of lead pencil two inches long removed with a pair of vulsellum forceps. There was but slight hemorrhage which was easily controlled. The wound was washed out with carbolized water, antiseptic gauze applied, and the whole covered with absorbent cotton kept in place by a firm bandage. No sutures were used, the wound healing by granulation. As there was but a slight rise in temperature, the patient made an uninterrupted recovery. The lead pencil undoubtedly penetrated the leg from the pocket of the dress as the larger piece was found there, the fall on pavement being sufficient to cause the pencil to break in half.

Acute Hypertrophy of the Mammary Glands.—T. J. Crawford, M. D. *The Southern Practitioner.* A young girl was brought for treatment and gave the following history. When a few months passed the age of 14 she experienced her first menstruation, dur-

ing which time she was suffering with "la grippe" and mumps. Prior to this time the breasts of the girl presented nothing unusual, but they soon began to enlarge, until it amounted to a deformity. As remedies seemed to fail in checking the growth, she was brought for examination being then fifteen years old. The measurements at the time were as follows:

Circumference at base, right 23, left 24½; circumference midway between base and nipple, right 27½, left 31; circumference from front of base over nipple and back to starting point, right 32½, left 35½; from sternal to axillary side of base over nipple, right 27, left 29; from base above to base below over nipple, right 22½, left 24 inches.

After compression had been tried for two weeks and the breasts were as large as at first, an operation for their removal was determined upon. Lateral flaps were made, the bases being large, the organs quite vascular, rendering it impossible to avoid considerable hemorrhage. There was almost no cellular tissue and fat between the skin and the gland, no doubt having been absorbed from pressure. The hemorrhage being so profuse the adherent skin was peeled off from the gland by the use of the handle of the knife and the fingers, the gland removed from its attachment to the pectoral muscles in the same manner, and the sheath of the muscles brought away with the gland. There was a surprising lack of large blood vessels at the base of the breasts, being only a moderate oozing.

The wounds did not heal as rapidly as had been expected, partly owing to the irritating and septic fluid from the gland and partly due to the want of sufficient circulation in the skin flaps after having been torn off.

Two weeks after second breast had been amputated she was permitted to leave for home and has since remained in good health.

Case of Pseudo-Leucocythæmia-Intestinal Perforation Etc., Death.—Arthur R. Edwards, M. D. *Chicago Med. Recorder.* A German, thirty-two years of age, was admitted to hospital and stated that seven months before a small, moderately hard, movable tumor appeared in the left sub-maxillary region, since which time the glands in other parts of body had enlarged. An examination revealed the following: All the cervical glands, the axillary, supra-trochlear, inguinal and femoral glands were enlarged. They presented no evidence of inflammation at the time of examination or that same had taken place at any previous time. Neither spleen or liver showed signs of enlargement, but there was slight and constant pain in left hypogastrium just beneath costal arch. The right testicle was enlarged and very hard. This condition continued without change for a month, except that marked anæmia was noticed and the ankles became œdematous.

About a week after this, the man was suddenly seized with severe abdominal pains, vomited a green fluid and complained of diarrhœa with cramps. The patient passed rapidly into collapse, and despite stimulation died fourteen hours after the first symptoms.

The post-mortem held twenty hours after death showed the pericardial cavity obliterated by firm adhesions; pericardium closely studded with hundreds of small white tumors and small spots of ecchymosis were found on outer surface of parietal layer. There were some small minute spots of atheroma on endocardium, which was also slightly ecchymosed. Right tonsil enlarged and white—medastinum contained numerous large, whitish glands. Thymus gland remained larger than in fœtal life. Sternal glands much enlarged and very prominent. The left lung contained slight adhesions at apex; floats; crepitates throughout; surface somewhat irregular and numerous nodules could be felt but not seen beneath the pleural investment. Bronchial glands were much enlarged, not fluctuating, discrete and whitish. The cavity of abdomen contained large amount of seropurulent material and cutaneous growths were found upon the outer abdominal walls, subcutaneously and upon the inner sides of the parietes subperitoneally. Mesenteric glands enormously enlarged, as was also aortic lymph glands. The mucous membrane of stomach was studded with large growths, resembling cerebral convolutions in contour. Throughout the small intestines were small white nodules, varying in size from a pea to that of a pin-head and interspersed between the rugæ. Every solitary fold of large intestine was enlarged, presenting well-marked circumscribed elevations, of which some were ulcerated and others ecchymosed. Small tumors on liver and the pancreas was imbedded in a mass of glands, from which it was impossible to separate it.

Case of Brain Surgery.—E. W. Smith, M. D. *Medical Mirror.*—In April of this year a young man 17 years of age while working in coal mine was caught by the falling roof of a coal chamber, his head forced against the corner of a small underground coal car, and a portion of the left half of frontal bone broken, the large fragment being forced inward upon the brain surface. The line of fracture extended from a point slightly to the right of the median line of the forehead—downward and outward to the outer canthus of the eye—then across the orbit and to the first point mentioned, making the lines of fracture in triangular form with apex upward.

After rendering the parts thoroughly aseptic the detached bone was removed, with some laceration, loss of brain substance and a considerable rent in the meningis. The sight of the left eye was found to be entirely destroyed. Hot water was used to cleanse the wound, the lacerated edges drawn together and united by suture, and a small drainage tube inserted at the lower angle of the wound. The patient was in a comatose condition for three days but gradually became rational. Cold applications were made constantly to head, and the wound united without suppuration, the man making an uninterrupted recovery.

Case of Congenital Phimosis, Leading to Death at the Age of Eighty-Three.—Arthur S. Taylor, M. D. *The Lancet.* A man aged 82 was found dead in a field and the following post-mortem took place:

Lungs slightly congested with a little old pleurisy on each side. Heart large, but healthy. The first part of the aortic arch was dilated, but for a man of eighty-three the artery wall was exceptionally good. Both kidneys were remarkably cystic, with enormously distended pelves and ureters. The bladder was greatly distended by urine, and in two or three places only the peritoneum prevented rupture into the abdominal cavity. There was no stricture of the urethra, though the middle lobe of the prostate was much hypertrophied. There was congenital phimosis, the circumference of the aperature when slit open and

stretched being one inch. On opening the skull discovered submeningeal hæmorrhage covering the base of the brain, running down the vertebral canal, and spreading over both frontal areas. Could discover no small aneurysm, nor the actual vessel which had given way. The interest of the case lies in the slow but sure progress of the disease. Doubtless the end was hastened by the hyperthrophy of the middle lobe of the prostate. At the inquest, the deceased was said to have enjoyed very good health. He had had an attack of dropsy a year previously, and shortly before his fatal apoplexy suffered from epistaxis. The arteries at the base of the brain were rather rigid, but by no means bad. He had several children.

Ophthalmology.

SERPIGINOUS ULCER OF BOTH CORNEA CURED BY SCRAPING.—A. G. Mossop, M. R. C. S. *The Lancet.* —Mrs. A., age 65, having taken cold some two weeks before seeing her, suffered greatly with pain in her eyes. There was great photophobia and pain, with congestion of the conjunctiva and marked debility, examination revealing an ulcer having a diameter of about two millimetres, situated on the outer part of the left cornea and extending on to the conjunctiva. Quinine and iron was prescribed internally, and atropine solution locally three times a day. The left temple was blistered, the eye covered, and this treatment kept up for five weeks, but the patient often suffered from intense photophobia, which, however, was much relieved by painting the forehead and temples with iodine liniment. Notwithstanding best endeavors, the ulcer continued to increase in all directions, involving the whole of the outer half of the cornea and neighboring conjunctiva, the latter being greatly congested, and there was no signs of healing in any part.

The yellow oxide of mercury had been used in the hopes that it would check ulcer, but causing irritation it was abandoned, but as the ulceration had now become so deep that perforation of the cornea was feared, and another ulcer had appeared on the outer edge of the right cornea, it became evident that urgent measures would have to be adopted.

After a drop or two of cocaine had been placed in both eyes, the ulcers were thoroughly scraped, and the surfaces covered with powdered boracic acid. The pain almost immediately disappeared and the next day the patient was found to have passed quite a comfortable night, and seemed greatly relieved. Atropine was used three times a day for the next two weeks and by that time the ulcers had entirely healed. As there was considerable opacity on left cornea, it was much improved by five grains of iodide of potassium to the ounce of water, a few drops being used in eye three times a day. Vision was completely restored, and there has been no further trouble.

RULES FOR GUIDANCE IN CATARACT OPERATIONS.—H. Knapp, M. D., *Am. Lancet*:

1. Keep out bacteria, or wash them off by germless, unirritating liquids; boiled water, boric acid and other indifferent substances dissolved in boiled water.

2. Prevent the multiplication of germs by antiseptics; watery mercuric bichloride, or alcoholic bichloride, chlorine water, nitrate of silver, and other substances in very weak solutions.

3. Perform the operation with the utmost degree of neatness and accuracy, and with a minimum of traumatism, avoiding bruising, scratching, and tearing of any kind, so as to reduce septic conditions to a minimum.

4. Endeavor to obtain primary union by freeing the wound from all foreign substances, by perfect coaptation of its edges, and by maintaining the greatest possible immobility of the organ until the closure of the section is firm.

5. Avoid constitutional infection of the wound. It is dangerous to operate for cataract as long as the constitution of a patient is under the active influence of a specific disease; for instance, articular rheumatism, acute or chronic suppuration, syphilis and the like. In some incurable diseases—for instance, diabetes—we must select the time when the vitality of the patient is least reduced.

HEMORRHAGIC GLAUCOMA.—R. L. Randolph, M. D. *The Jour. of American Medical Association.* For several years, Mrs. P., now age 52, has been subject to violent attacks of sciatica of right leg, otherwise good health, never having trouble with eyes. One night before retiring, upon closing right eye, it seemed as if everything in room was enveloped in a cloud. As vision was no better the next morning, and she was unable to recognize her family with that eye, a physician was consulted, and she was treated for an attack of indigestion. Not improving in three days, she came under my observation, being able to count fingers at six feet.

The ophthalmoscope showed numerous small hæmorrhages around the disc and in the region of the macula. Several small plaques were to be seen near the papilla. There was no optic neuritis though the blood vessels were dilated, and at several points not far from the optic nerve, the evidence showed minute ruptures having occurred. Tension of the eye at this time was normal. A diagnosis of hæmorrhagic retinitis was made, but a physical examination gave negative results.

Iodide of potassium, 10 grs. three times daily was prescribed, and the use of the eyes forbidden except through smoked glasses. For six weeks eyes continued in the same condition, but during the next six weeks improved slightly in vision, but at the expiration of this time she had a severe attack of sciatica, suffering intensely for hours, and at the end of attack, boring, lancinating pains began in the side of face, down side of nose, and centering in eye. Consulting oculist at place of visit, he found the following condition. T. + 2, pupil widely dilated and no reaction to light, slight chemosis. Ophthalmoscope showed retinal hæmorrhages, mostly old ones, but certainly one fresh hæmorrhage, about the size of the papilla and situated between the latter and the macula. Vitreous a little hazy. R. E. V.-$^{20}/_{20}$. L. E. V. counts fingers in 10 inches. After treatment for several days with eserine and antipyrine she returned and it was found the tension of the eyeball was at its maximum, and the media were all closed, showing the general disturbance in the nutrition of the eye. Anterior chamber shallow, and scarcely more than light perception was present. After treatment for two days, the pain continuing still severe, it was determined to perform iridectomy, which gave immediate relief.

Three weeks after the pain returned and it was

concluded to resort to paracentesis of the vitreous. A Graefe cataract knife was passed in one-fourth of its length, into three points of the eyeball—above, just at the posterior and temporal side of the insertion of the superior rectus, and in the equatorial region at the nasal and temporal side. This seemed to have given permanent relief, although at times the tension mounted up, but always without pain. The pupil widely dilated, and the eye was somewhat more compressible than the other. Light perception was gone, retina detached; and numerous striations in the lens.

Otology.

STRICTURE OF THE AUDITORY CANAL. L. J. Hammond, M. D. *University Medical Maz.* A boy only 12 years of age had for twelve months experienced itching and dull aching in right ear, with slight discharge from canal, very fetid in character. No attention had been paid to this, until it had existed for five months, then upon examination a large boggy mass extending over the entire mastoid was found. Hearing was absent on this side, and upon removal of fetid discharge from external canal with peroxide of hydrogen, a stricture, about three-quarters of an inch from external orifice was found to be the cause of trouble. As the condition of boy was such as to demand prompt relief, an operation was determined upon.

An incision was made with small, blunt-pointed bistoury and carried well down to the bony canal. Upon exploring the cavity behind the stricture, the soft parts were found to be entirely destroyed, and upon removal of the accumulated mass in the cavity the bony wall posteriorly was found necrosed. A free incision was made over the swollen portion, the pus cleansed out, and the necrosed tissue, including the bony canal posteriorly was curetted away.

The ear was cleaned with peroxide of hydrogen, the mastoid packed with iodoform gauze, and the stricture kept open by salicylated cotton plugs, which were removed daily. This same form of dressing was continued for two weeks, the ear being thoroughly cleansed and the necrosed bone curetted before each dressing. At the expiration of this time the stricture had been almost entirely removed, and at the end of two months the boy had entirely recovered, but had lost almost the entire bony wall and mastoid region.

Medicine.

BRASS MOULDER'S DISEASE.—Wm. H. Burr, M. D. *The Medical and Surgical Reporter.*—A farmer perfectly robust and healthy, and 42 years old, began brass casting, the first six months being troubled very much with colic, constipation, chills and fever, becoming much debilitated. This condition of health continued for about ten years, during which time he still remained at work, but symptoms of numbness setting in in right hand and gradually extending to left, he quit work. He complained of complete loss of appetite, with a peculiar sensation like a tremor running the length of spinal column, accompanied with severe neuralgic pains in the head. At the end of three months on a farm he became much improved in health and resumed work when the symptoms almost immediately returned, with sharp shooting pains passing from heel to calf of leg and knee, sometimes continuing up the legs by way of spine to head, and shooting up from back part of head over crown. These attacks would leave left shoulder and arm numb, but this would disappear with rest. He experienced constant insomnia, and all of his unpleasant symptoms were aggravated by heavy lifting or prolonged exertion. He was again obliged to stop work and spent two years in traveling over the continent. Upon his return he began work once more, but in little over a year was again obliged to give it up, having a return of all symptoms accompanied with swelling of the right leg. In walking there was the sensation of pulling or drawing from limbs to back which seemed to affect the gait, this being aggravated by much exertion. During the six months he now gave to resting he was much improved and has worked some six months with very little numbness of hands and arms, right hand and arm being most affected.

RESUSCITATION FROM DROWNING.—*The Medical Age.* The prevalence of surf and deep water bathing, and the not infrequent fatality attending bathers whose lives are imperiled from loss of voluntary movement, as in cramp, over fatigue, or recklessness in exposing themselves to existing dangers of surf, undertow, or deep water bathing, render a knowledge of methods of resuscitation from drowning of general interest, especially to physicians who may be called upon to direct the treatment of such cases.

Physicians are familiar with the various methods commended for restoring respiration in such cases, but not all have presence of mind enough in such emergencies to carry out a few common sense measures which may be instantly employed.

In the Schweiz. Blatter f. Gesundheit, Herr Setens, President of the Seaman's Society in Hamburg, suggests the following resources:

When a person is discovered to be drowning, call to him in a loud voice that he shall be saved, to prevent demoralization from fright.

The rescuer should undress as rapidly and completely as possible, even tearing the clothes from him that he may not be encumbered.

The rescuer should not touch the drowning person while violently struggling in the water, but take the first opportunity to seize him, by the hair if possible, throw him quickly on his back, the rescuer himself swimming on his back, and towing the body after him, resting the head on the chest, holding the head with one arm, that the other arm and limbs may be free. This position may be maintained longer, and a body be supported more easily till further aid from shore is received, than by breasting the water in the usual position.

When the current sets from the land, as in sea bathing, it is better to adopt the last position described, and await aid, than to struggle against the current for shore, as this latter procedure often loses both the rescuer and the one he seeks to save, through ineffectual efforts resulting in exhaustion.

If a boat is available, the stern or bow are the proper places to get bodies in a boat with the least danger of capsizing. The body once in the boat, or ashore, should be placed with the head lower than the body, which may be done by placing the back on the seat of a boat or on a hillock of sand, with head extended and dropping backward, the arms being extended behind the head. This usually results in emptying, by

the mouth and nostrils, much of the water that is interfering with respiration, and may be supplemented by the movements of the Silvester method of inducing forced respiration.

If stimulants are available, their hypodermic use should be actively and heroically resorted to.

CASE OF LEAD COLIC.—M. M. Bowlan, M. B. *The Lancet.* A girl working in whitelead factory, was admitted at hospital suffering from slight attack of lead colic and constipation, which gradually increased. There was no gingival discoloration, neither line nor dots. No paralytic symptoms, eyesight good, and she had been free from headache or fits. Not finding the gum lime, its absence was explained by the fact that patient was in the habit of using table salt with tooth brush regularly after return from work. This was the second attack of colic patient had been subject to, but first was not very severe and readily yielded to treatment. After six weeks the colic had entirely left the woman, she having been given opium and sulphate of magnesium mixture.

FOREIGN BODIES SWALLOWED BY A STOWAWAY. *The Lancet.*—On Thursday, May 21, the body of an Arab, found dead on one of the ships in the Albert Docks, was taken to the Seamen's Hospital, name unknown. A necropsy was ordered by the coroner, and made by Dr. F. Croucher, house surgeon to the branch hospital. There were no signs of disease in the brain or the chest, except a few old adhesions in the left pleural cavity. The gall bladder was very distended and full. Three small ulcers existed on the anterior coat of the stomach. Several patches of inflammation were found in the small intestine. In the cæcum were found twenty trousers buttons, three cogwheels (apparently out of a watch, two of them 1 inch in diameter—these were doubled), one 2-inch steel screw bent double and one 1-inch screw, six pieces of a lock (the biggest piece was 1½ inches long and ½ inch broad), a circular piece of brass (1¾ inches in diameter folded into four), several pieces of iron wire (four were 1½ inches in length), brass and lead, and two key tallies on a ring, one inch in length. In the ascending colon, about five inches from the cæcum, were found a piece of steel wire one-eighth of an inch in diameter and 3½ inches in length, bent double, and one small cogwheel. The weight of these bodies together amounted almost exactly to half a pound. The body was much emaciated. No subcutaneous fat was present in chest or abdominal walls, or any fat round the kidneys. The deceased was quite unknown; no particulars could be discovered by the police employed to obtain evidence for the purposes of the inquest. There was no perforation of the intestines, or any sign of disease in the colon.

Laryngology.

PIN IN LARYNX.—F. T. Waxham, M. D. *The North American Practitioner.*—Twenty-four hours before seeing this 10 year old boy he had allowed a pin to slip down throat, while holding it in his mouth. A sharp pain was soon felt, which was greatly intensified by swallowing. As the pin had fallen into larynx head first, a fit of spasmodic coughing which had occurred had driven the point upward into the epiglottis. A crust of bread being swallowed, the head of pin striking against the walls of the larynx, the point was more deeply forced into the epiglottis and prevented from dropping into the trachea.

A careful laryngoscopic examination revealed the pin with head directed downward into the glottis and the point firmly implanted in the tip of the epiglottis. The throat was anæsthetised with ten per cent solution of cocaine, a modified Cusco's forceps employed, and guided by mirror the pin was firmly grasped and removed with but slight injury to the epiglottis. This disappeared in the course of two or three days, the boy having experienced only a slight pain in swallowing during this time.

Therapeutics.

ATROPINE IN HEART DISEASES.—Dr. Cardarelli (*Norsk Magazin for Lægevidenskaben*, No. 4, 1891) has found that atropine in doses of one-half to two milligrammes (1-128th to 1-32d of a grain) injected subcutaneously removes the inhibitory influence of the pneumogastric. The pulse increases in frequency and the blood pressure diminishes. Hence atropine is indicated in irritation of the pneumogastric. Whenever a slow pulse, with dizziness, convulsions and syncope, are present, atropine is indicated.—*Pritchard.*

ARSENITE OF COPPER FOR ULCER OF STOMACH.—For an ulcer of the stomach Waugh prescribed 1-100 grain of the arsenite of copper.

CODEINE IN DISEASES OF WOMEN. — Following Lauder-Brunton's recommendation of codeine (*British Medical Journal*), for "pains in the bowels and lower part of the abdomen," Freund has made observations as to its usefulness in diseases of women. He finds that while in pain which proceeds from the uterus, codeia gives temporary relief; in exudations of the pelvic peritoneum and connective tissue and affections of the tubes it is useless. On the other hand, in ovarian troubles Freund finds it to be of great value. He gives three times daily 1 pill containing ½ grain of codeine. This dose promptly relieves all ovarian pain, whether of inflammatory origin or so-called simple neuralgia. The action of codeine is a purely local one. It does not stupefy, above all things, nor does it interfere with the appetite or regular movement of the bowels.—*Therapeutic Gazette.*

TREATMENT OF ANGINA PECTORIS BY COCAINE.—*Revue de Médicine.*—In this paper the author strongly recommends the use of cocaine in angina pectoris, in the does of ½ to ⅓ of a grain three or four times daily. He quotes four cases of this disease which were benefited greatly by this treatment. If the attacks do not cease immediately after taking the remedy, they completely yield to it, however, in about three days. Under its use the pulse becomes slower but fuller, and the quantity of the urine is augmented. The author refers to some observations previously made by him, which appeared to show that the inhalation of oxygen in this disease did much good; he therefore suggests that it should be tried in conjunction with the internal administration of cocaine.—*Med. Chronicle.*

APOMORPHINE THE BEST EMETIC FOR CHILDREN.—John Brown, M. B., B. Ch. Vict., etc., in *British Medical Journal*, March 9, 1889, considers apomorphine a safe, certain and quick emetic, and especially good for inducing emesis in children. He uses one-twelfth of a grain of the alkaloid.

He cites ten cases taken seriatem from his case books. In these the average interval between the hypodermic injection and the emesis is 10.1 minutes. As a rule, the vomiting only occurs two or three times at short intervals. The depression is only what might be expected after an ordinary vomiting. He says: I have observed no case approaching fatal or even serious collapse. Only two of the cases were adults, the others were very young children. Cases 4 and 5 were my own children, and I have the greatest confidence in giving it hypodermically to any of my children who may require an emetic. Every one must have observed how difficult it is to make an infant or a child under 4 years vomit by giving emetics by the mouth. I have been surprised that authors on children's diseases do not recommend apomorphine hypodermically.

Remedies for Night Sweats.—The practice of using gr. $^1/_{60}$ or $^1/_{120}$ of sulphate of atropine for night sweats is very common, but occasionally cases are met with in which unpleasant symptoms, such as a scarlatinaform rash, dry throat, restlessness, numbness, etc., arise from even the smaller dose mentioned above. It is rather remarkable that the antidote to atropia poisoning, viz.: pilocarpine, should in small doses act well in such cases, as indeed we have found it of much benefit in nearly all cases of night sweating. The following, taken from the *Med. News*, will be of interest in this connection: The various remedies brought forward at different times for this troublesome state have each in its turn proved useless in certain cases, and while agaricin may be mentioned as one of those which deserve the least praise, in our own experience pilocarpine amounting to the twentieth of a grain, given from one to two hours before the sweat is expected, are potent for good. The means by which this result is brought about are not far to seek. The drug in all doses greatly stimulates the peripheral ends of the nerves supplying the sweat glands. In many instances we find excessive secretion dependent upon depression of function, as in a serious diarrhœa or a local sweating of the feet. These states pass away just so soon as the parts regain their normal tone through proper treatment. The night sweats of phthisis are improved by pilocarpine, because this drug in all doses stimulates the sweat glands. In large dose this stimulation amounts to diaphoresis; but in the minute dose such as we name, the stimulation just balances the depression, and a normal tone is acquired. While it is true that pilocarpine and atropine are physiological antagonists, it will be found practically beneficial to prescribe small doses of both in such cases as refuse to respond to either one alone, as by their antagonism they prevent overaction on other parts of the body, and both act in harmony in so influencing the sweat glands as to be of service to the physician.

Salicylate of Lithium in Rheumatism.—M. Vulpian has read, before the Académie de Médecine, a summary of the results of his experiments on salicylate of lithium in articular rheumatism. He states that his experiments indicate that lithium salts are not so poisonous as they are supposed to be. Salicylate of lithium is not more dangerous than salicylate of sodium, and can be administered in almost equally strong doses. In acute articular rheumatism salicylate of lithium relieves the pain which often remains in the joint after the swelling has disappeared, whereas colchium and salicylate of sodium have no effect. M. Vulpian believes that salicylate of lithium is especially beneficial in fibrous rheumatism. In progressive subacute rheumatism M. Vulpian has seen salicylate of lithium produce great improvement. Salicylate of sodium has been successful in such cases, and produced amelioration of the patient's condition; but both greater and more lasting benefit is obtained by salicylate of lithium. In chronic articular rheumatism M. Vulpian has found salicylate of sodium useless, whereas salicylate of lithium has had a marked effect on the joints, which become less swollen than before the treatment. This drug sometimes induces headache and deafness, but is never followed by the distressing noises which characterize treatment by salicylate of sodium. The headache and deafness disappear quickly.—*London Medical Record.*

Atropine in Ptyalism.—Dr. Otto Hebosi. Atropine, according to the author, is very efficacious in ptyalism, especially when of neurotic origin. In one case of alcoholic dementia, the patient secreted as much as a litre of saliva in twenty-four hours; another case of epileptic mania secreted at least an equal amount. In both cases the ptyalism ceased after the administration for several days of atropine, in doses of from ¾ to 1 milligramme.—*Journal de Méd. de Paris* (*Paris Medical.*)

Pilocarpine in Insomnia.—For *insomnia* and restlessness of delirium tremens in its first stage, pilocarpine is a remedy which will be found to act remarkably well.—Bartholow.

Picrotoxin for Night Sweats.—Picrotoxin is one of the best remedies for *night sweats* of consumption; one dose of $^1/_{65}$ or $^1/_{60}$ grain taken at night generally prevents perspiring for several nights.

Cocaine for Chorea.—Prof. Bartholow prescribed for a case of pure and simple *chorea*, gr. ⅛ of cocaine morning and evening, and, as most important adjuncts, directed particular attention to be paid to dietetic and hygienic influences.

Tartar Emetic for Constipation.—In *constipation* occurring in the thin and anæmic, the efficacy of sulphate of magnesium can be much increased by the addition of gr. j–ij of sulphate of iron, taken before breakfast each morning. However, if the patient be of full health, robust and plethoric, you can add to the Epsom salts with much advantage gr. $^1/_8$ – $^1/_2$ of tartar emetic.

Cocaine in Nervous Asthma.—Prof. Da Costa recently treated with marked success a case of pure nervous asthma with one-fourth grain of cocaine ter die. After obtaining the desired result the remedy was given only twice afterward, and but once a day.

Salicylic Acid as a Diuretic.—After a series of investigations on this subject, Huber concludes that salicylic acid is one of the safest and most important diuretics. The greatest increase in the amount of urine seems to occur in rheumatic fever and serious pleurisy, whether the temperature is raised or not. In all cases the total loss of water by the skin and urine was increased, and the solids of the urine were increased. In ordinary pleurisy, and in four cases of cardiac dropsy the drug acted well.

COLCHICINE FOR THE EYE.—Colchicine is recommended by Dr. Darier in certain eye affections, and is administered in pill form, each pill containing $\frac{1}{67}$ grain of the drug, of which from 1 to 2 or 4, or even 6 pills, can be taken daily. Care must be taken to instruct patients to reduce the dose as soon as intestinal derangements manifest themselves. Some patients have taken as many as 200 pills without complaining of unfavorable symptoms.—*Med. News.*

PHYSOSTIGMIN IN CHOREA.—L. Riess, reports in the *Berliner klin Wochenschrift*, No. 22, 1887, the result of his treatment of chorea and other hyperkinetic affections with physostigmin. He has obtained successful results from hypodermic ejections of $\frac{1}{60}$–$\frac{1}{30}$ of a grain several times a day. The duration of the disease was shortened in nearly all cases, and recovery sometimes occurred in five days. With the exception of vomiting, no bad effects of the drug were observed.

Obstetrics.

CASE OF PAINLESS LABOR.—E. Denegre Martin, M. D. *New Orleans Medical and Surgical Journal.*—Patient only twenty years of age and primipara, was admitted to the hospital for her confinement. Five days after she complained of cramps in abdomen, and an examination to determine if labor was progressing being made, the os was found fully dilated, head presenting and in first position. There was complete inertia of the uterus. Ten grains of quinine was administered but patient vomited it, and after half an hour 15 grains more were given. Slight contractions of the uterus were apparent in less than an hour, but the woman suffered little if any pain. Membranes were ruptured, and in half an hour she was delivered of a 6½ pound baby. There was but slight hæmorrhage, which was checked with hot water douches, no rise of temperature, and no afterpains. The placenta weighed ¾ pounds; umbilical cord was 41 inches long, and wound twice around the child's neck. The patient was able to be discharged ten days after confinement.

ANENCEPHALOUS MONSTROSITY.—Hugo A. Gabert, M. D. *New Orleans Medical and Surgical Journal.*—Mrs. B. V., 38 years of age, had been married 13 years, during which time has had six children, expecting next confinement in September, but middle of July commenced to suffer great pain and came under observation. Found patient with an abnormally distended abdomen, and from continuous contraction the uterus had become so hard and tense that the abdomen did not yield, and palpation for fluctuation and auscultation for the fœtal heart-beat resulted negatively.

Digital examination revealed neck of uterus not yet gone, but rigid and tough as sole leather, the opening of the external os was three-quarters of an inch in diameter, and forcible dilatation was made in order to make a thorough examination. The introduction of fingers revealed a bony substance like that of the posterior fontanelle, but floated away as soon as touched; the membranes were found intact, although small quantities of water had been lost during week. In order to produce incessant pains and bring on delivery one-half grain of morphine was administered hypodermically, with chloral hydrate, ten grains every two hours if pains should continue in their severity.

Patient continued quite comfortable until about 11 o'clock the following night when she was found to be in advanced stage of labor, the os being open to the extent of an inch and a half in diameter, but uterus still very rigid. The same bony substance was felt as at first and ballottement; sac still intact and after rupturing the membranes the water came in torrents, and after this had all been drained out, the abdomen appeared completely collapsed.

Upon another examination of the parts, a different state of affairs was found. The rotundity of head could not be found, neither the fontanelles, but instead was felt a mass, round in shape, about the size of an average scrotum, and everything around felt soft and mushy, all pointing to a breach presentation, but concluding to wait as the woman had good pains for its expulsion. This took place in half an hour, and proved to be a most horrible living anencephalous monster of seven and one-half months' gestation. It was breathing and kicking, and lived ten minutes. The birth was followed by no troublesome symptoms, and she made a good recovery.

Book Reviews.

"Practical Points in the Management of Diseases of Children." By I. N. Love, M. D., Professor of Diseases of Children, Clinical Medicine, and Hygiene, Marion-Sims College of Medicine, St. Louis, etc. Geo. S. Davis, Detroit, Mich. 1891. Paper, 12mo., pp. 141.

Dr. I. N. Love, is well and favorably known as the editor of the *Medical Mirror*, published at St. Louis, Mo., and also as a prolific writer on the subject which he has contributed to the profession in this number of *The Physician's Leisure Library*. A careful examination of the book shows it to be a thoroughly reliable and practical guide in the management and treatment of the many and various diseases that children are affected with. In the author's preface he says: "Never in the history of the world has there been as much brain work upon the part of every class and condition of men in behalf of children as now. This is, indeed, the children's age. Art, literature, mechanical ingenuity, and every possible field of work have been directed toward the improvement, the amusement, and the comfort of the children, and it is high time for doctors to be aroused to a keener interest in them." We predict for the little book a large circulation.

"Stories of a Country Doctor." By Willis P. King, M. D., Kansas City. Second edition. Hummel & Parmele, Pub. Philadelphia, Pa.

The first edition of this book has been soon exhausted and now the second is before us. The price of $1.00 per volume instead of $2.50 as formerly will be appreciated by those who were unable to purchase from the first edition. The book is thoroughly interesting and amusing and can be read by the patients as well as the doctor.

"Lectures on Tumors, from a Clinical Standpoint." By John B. Hamilton, M. D., LL. D. 12mo, cloth, pp. 138. Detroit, George S. Davis. 1891.

This book gives a stenographic report of twelve lectures delivered at the Georgetown University in Washington, by Dr. Hamilton, and is the introduction to a larger work to be published soon under the title of "Tumors of the Regions." These lectures only

give the general principals, clinical history and treatment of neoplasms, the illustrations being limited to simple types, with but few exceptions. Original discovery has not been attempted, the aim being to impart the current information in a form intended to fix it in the memory of the student.

There are a great many books descriptive of the pathology of tumors, but few combine the clinical observations necessary to an understanding of the treatment. The experience of the author in over twenty years surgical practice has been freely made use of, and every tumor removed in the surgical ward of Providence hospital has had specimen submitted for examination and opinion.

The student will find this little book of value to him while studying his profession, throwing light on many points that have been hitherto obscure.

"Physician's Leisure Library Series. Practical Notes on Urinary Analysis." By Wm. B. Canfield, A. M., M. D., Chief of Chest Clinic and Lecturer on Clinical Medicine, University of Maryland, etc., etc. 12mo. paper, pp. 95. Illustrated. Price, 25 cents. George S. Davis, Publisher, Detroit, Mich, 1891.

The importance of a knowledge of urinary analysis is generally known, often bringing light to a doubtful diagnosis. The science has however been carried to such a degree of perfection that an expert chemist alone is able to master it in all its details. The object of this work is to endeavor to show the tried and reliable tests for detecting normal and abnormal substances in the urine, and at the same time to try to point out the little errors, and guard against mistakes that may occur in making the analysis.

The writer has unhesitatingly made use of literature already published on the subject and illustrated the work in a liberal manner. We deem the book of value both to the physician and student, giving him considerable information in a very concise and brief style.

Items of Interest.

Dr. A. C. Bernays has been elected Professsor of Surgical Pathology and of Clinical Surgery in the Marion Sims College of Medicine, St. Louis, Mo.

The year 1892 will mark the beginning of the three years' course in the Medical Colleges, and members of the American Medical College Association will conform to the resolution passed at the last session. All matriculants will be forced to attend three full terms of lectures before becoming a candidate for graduation.

Nicotine Poisoning.—A merchant while shaving himself inflicted a slight wound on the lower lip. Not minding the trivial injury thus occasioned, he shortly afterwards smoked a cigar. During the following night the lower portion of the face became very much swollen. No treatment availed, and he died after great suffering. His attending physician believed that in smoking some nicotine was absorbed by the wound.—*Med. Neuigkeit.*, 9, 1890.

The following treatment of burns is said to be very beneficial. Blisters are not opened, but are pierced with a silk thread soaked in sublimate solution and left in place. The whole burned area is then spread with a ten per cent iodoform vaseline, and is covered with gummed paper or silk; the salve should be renewed daily. By this plan, pain is relieved at once, and cicatricial contraction is rare.

The improper use of morphia is said to be extending very rapidly in Paris, with deplorable results. Two establishments, luxuriously furnished have been opened to which people who have a craving for the drug can go to be gratified. The price charged for first injection of morphia is five francs, and half price for succeeding visits.

There will be a meeting and conference of the Medical Press Association at St. Louis during the session of Mississippi Valley Association, Oct. 14, 15 and 16.

The 9th annual meeting of the American Rhinological Association took place at Indianapolis, Ind., the 6th of October. The meeting was very interesting, a large number of valuable papers being read.

There are twenty-six female students under training in the Madras Medical College, of which number six are being trained for the Hospital Assistant's grade, and the rest for the Apothecary's grade. Six of these students, three in each grade, are expected to graduate in a short time. These will constitute the first women physicians in India.

The Austrian government has passed a law compelling physicians who wish to style themselves specialists in any branch, to furnish proof that they have devoted special study to the diseases they profess to treat.

The leper population in Jamaica is estimated at 450 or one leper to 1,380 of the residents of the island.

At the opening of Rush Medical College, Chicago, on September 29th, the occasion was made memorial to the late Dr. Chas. T. Parkes. A bronze bust was presented to the College by Mrs. Parkes, and unveiled with appropriate ceremonies.

Dr. Abram Du Bois recently died in N. Y. City, at the age of 81 years. He was a pioneer in specialism in New York, devoting himself chiefly to ophthalmology, being for many years senior consulting surgeon to the Eye and Ear Infirmary. During his lifetime he gave the Academy of Medicine $8,000 for library purposes.

A new institute for infectious diseases was opened at Berlin, August 17, under the direction of Dr. Koch. Six patients were admitted the first day.

Wit and Humor.

"And so poor Jones is dead," says Brown, as he meets Robinson on the street.

"Alas, too true! The strangest thing I ever heard of. Marvelous! Astonishing!" answers Robinson.

"What is?—that he should have died?"

"No; his disease. You remember how fearfully bald he was? His head was dead slick; and yet—they say he died of *capillary* bronchitis. It beats me!"

Doctor: "Well, Dennis, did you take the pills I sent you?"

Dennis: "Indade, docthor, an' I did not; ye wrote on the box 'One pill three times a day,' an' I've been waitin' till I see you to ask you how a man was to take a little bit av' a pill loike that three times in wan day?"—*Harpers' Weekly.*

Western Medical Reporter.
A Monthly Epitome of Medical Progress.

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ORIGINAL ARTICLES.

Modern Pharmacy.*

BY G. FRANK LYDSTON, M. D., CHICAGO.

If I were to tell you what I know about pharmacy my remarks would be as brief as those of a certain Irishman who once wrote a history of the ever-green isle. When he came to the chapter on snakes, he wrote, "Chapter X, The Snakes of Ireland. There are no snakes in Ireland." If, on the other hand, I should attempt to tell you all of the good things I should like to say about pharmacy, I fear I should never get through. It seems then that I must needs content myself with a few glittering and superficial generalities regarding the relations of the pharmacist to society, and, incidentally, to my own profession as well.

The science and art of pharmacy were probably appreciated as a necessity at a very early period of the world's history. If we accept the pretty little story of Adam and Eve, we are perfectly safe in assuming that they discovered the virtues of different herbs and simples in the healing of bodily ailments and injuries, very soon after their arrival on this mundane sphere. It is safe to infer, moreover, that they speedily acquired a knowledge of the best methods of preparing their remedies. We can imagine Adam with a gouty sore toe and the gentle ancestor of all trained nurses applying a poultice to the inflamed member. And that poultice was probably none the less efficacious because no elaborate theories of gout and its treatment had yet been invented. It is possible that some of you consider this illustration of the antiquity of pharmacy a little far-fetched as the beginning of the world must be. If so, I will call your attention to the fact that the lowest and most primitive races of the world have often a superior knowledge of the virtues of certain of nature's products in the cure of disease in both man and animals. We surely must give Adam and Eve the credit of possessing at least as much intelligence as an Australian Bushman.

A very striking illustration of the instinctive development of pharmaceutical knowledge is the elaboration of the arrow poison by the South American aborigines. Through the labors of these most primitive of pharmacists, we have learned the existence and properties of that wonderful drug—curare. Many other drugs might be mentioned for which we are indebted to the savages.

The antiquity and respectability of pharmacy are not without poetical indorsement. In that almost divine production, the Iliad of the immortal Homer, we hear one of his heroes say:

> "And thou Patrocles, act the friendly part,
> Lead to my ships and draw the deadly dart;
> With luke warm water, wash the clotted gore away,
> With healing balm, the raging smart allay,
> Such as sage Chiron, sire of pharmacy,
> Once taught Achilles, and Achilles thee."

From the crude pharmaceutical art of the past to the elegancies of the pharmacy of to-day, is a long step in advance, but our present palatable preparations and pharmaceutical refinements have been evolved from the crudities and abominations of past generations, and have been of very slow growth. When we read the works on pharmacy of only a century or so ago, and see the weird and uncanny preparations in vogue at that time, we realize what a blessing modern pharmacy is. Imagine such substances as cobwebs, black spiders, and snakes of various kinds as remedies for diseased humanity! Yet such things were highly recommended. The blood of the raven and of the viper were once thought to be very potent remedies for the cure of disease. So short a time has it been since such remedies were used that one is almost ashamed of the ignorance and superstition of our forefathers.

When the fashionable lady of this day and generation listlessly swallows a sugar coated pellet, or a dose of our modern palatable elixirs prescribed by the fashionable doctor, who has the good fortune to be her family physician, she has little to remind her of the mighty boluses and nauseating draughts that her grandmother took, at the behests of the country saddle-bags whose life and sphere of usefulness were bounded by pills the size of a billiard ball and by a thumb lancet. But the dear old would-be medical philosopher of the olden time has had his day, has run his course and is now sleeping the sleep of the just. Thank heavens, he took his pharmacy with him!

The pharmacist of to-day is unquestionably one of the staunchest friends that an ungrateful public could possibly have. Whether rising at night and dispensing an antidote for the gay and festive green apple, or the still more sportive melon—and incidentally for half a dollar—or discoursing learnedly to beauty upon the merits of the latest face powder, he is ever the same self-reliant, patient and long-suffering public benefactor. His hours of duty are never ended. Vigilant and untiring by day, he sleeps with one eye open at night and sometimes with an electric bell attached to his big toe. The way he can climb out of bed, hustle into his clothes, turn on the light and get to the front door, is an example for the fire department to emulate. But, strange to say, he awakens good-natured and is usually as affable as though sleep were a matter of secondary consideration and of conventional form rather than a necessity to him. Gentility is an attibute of his profession and it is rare indeed that the educated pharmacist does not possess all the attributes of the gentleman.

The pharmacist should be a man who does all things well and thoroughly. This is one of the many valuable things that to my certain knowledge the Chicago College of Pharmacy impresses upon each and every one of its graduates. The success of the pharmacist depends more upon this one factor than anything else that could be mentioned. Thoroughness is as essential in the man who washes the bottles as in the proprietor of one of those drug palaces with which Chicago is so plentifully supplied—and of which I hope every member of this class may eventually own at least one.

A famous society leader once said, "There is no reason why a gentleman may not black his own boots, providing he does it well." There is, then, a dignity and importance even in washing bottles, providing a good job is done.

* From address to the graduating class of the Chicago College of Pharmacy, July 28, 1891.

Let me say right here that it will be found that our wealthiest and most successful pharmacists are the men who used to wash their bottles the cleanest—the moral of which is, never be above your business. Thoroughness and scrupulous care are nowhere so necessary as in the compounding of prescriptions. Not only should the pharmacist be careful himself, but he should demand that others be equally careful. He should take nothing for granted, and if the doctor writes a slouchy prescription he should insist on its correction. Doctors are fallible like the rest of humanity, and a good pharmacist may stand between the patient and mistakes of a fatal character. If the doctor is cranky, never mind, but do your duty in spite of his idiosyncrasies. A sensible and competent physician will thank you for your courtesy and praise you for your skill. Doctors, as a rule, know very little of practical pharmacy, and they should be very grateful for the points which any capable pharmacist is willing and able to give them. The pharmacist is the doctor's best friend, and I trust that the time will come when every medical collage will have a chair devoted to the teaching of pharmacy. Certain it is that graduates of colleges of pharmacy who afterward have studied medicine, are among our best practitioners.

One of the duties of the pharmacist should be to discourage the use of patent medicines. I wonder if the average druggist ever stops to think what a slave he is to those implacable vultures, the patent medicine men? No matter how big the humbug, no matter how small the margin of profit, he must carry a stock of everything which swindling schemers foist upon the market. His own excellent and reliable compounds may lie spoiling upon the shelves month after month, but the sale of nostrums to a gullible public goes merrily on. When will the respectable pharmacists rise in their mighty and righteous indignation and refuse to keep such stuff in stock? The druggist is patient and long-suffering, but I hope that the time will come when the bland and senile physiognomy and fascinating mole of Lydia Pinkham will no longer glare at me from my pharmacist's shelves, and Warner's safe cure will be consigned to the oblivion of humbug and skullduggery. Let each and every pharmacist busy himself in showing up the fallacy and deceit of the patent medicine man, and much good may be accomplished, and perhaps many lives saved from destruction by hit-or-miss drugging or unpardonable neglect.

There is another crying evil which deserves some attention. I refer to the quasi-proprietary remedies now being hawked about by alleged respectable drug manufacturers. It has come to pass that the doctor has his medicines and prescriptions all cut, dried, classified and labeled for him. When he wishes to treat a case of disease he no longer has to take the brain route to his therapeutics. All he has to do is to look at the printed list of preparations of the Squedunk Chemical Company and select the appropriate remedy. Is the patient sleepless? He gives sleepine. Is the case one of dyspepsia? He gives stomachine. Are the kidneys at fault? Kidneyol is the proper caper. And so it goes. And poor old Hippocrates rolls over in his wormy old coffin and groans, "Beware of ready-made doctors." Next to Lydia Pinkham, the hand me down doctor is the biggest fraud on earth. And as the pharmacist goes through life, he meets many such doctors. It is the duty of the physician to so familiarize himself with the materia medica that he has no need to get others to think for him—no need of shotgun preparations. It is the duty of the pharmacist to demonstrate to the doctor that any first-class drug store can furnish compounds that are much more reliable than any semi-quack preparation upon the market.

I would be neglectful of my opportunity did I not touch upon one point on which, unfortunately, some pharmacists are quite sensitive. I refer to counter prescribing. This is a growing evil and one against which the pharmacists should array themselves as one man. The dignity of the pharmaceutical fraternity is not increased by attempts at practicing a profession not its own. Fairness and equity are not subserved by it. That an injustice is done the patron of the pharmacist goes without the saying. In some respects, the same arguments which have been applied to the use of patent medicines, apply also to the practice of counter prescribing.

One more point bearing upon the welfare of the profession of pharmacy and I am done: There has been of late years a tendency on the part of some of our merchants to dabble in things which do not concern them. It has come to pass that our dry goods emporiums have drug departments, and are a serious menace to the safety of the pharmaceutical profession. These large establishments can sell drugs and sundries at prices which would ruin any respectable druggist. As a matter of principle this is wrong. What right have these establishments to cut the throats of men who are equally entitled to a living with the Mandals, Marshal Fields and others? There is one dry goods house in this city that is actually attempting to dispense prescriptions. That the patrons of this hybrid establishment carry their lives in their hands, goes without the saying, but the public will doubtless be imposed upon just the same. I do not wish to advocate the boycott, but I will say right here that the pharmacist who patronizes firms of this kind is wanting in dignity and self-respect which his profession justly demands of him.

Gentlemen of the graduating class: You are to-day entering upon what may be justly called a learned profession. Your education is the weapon with which you are expected to fight the battle of life; this your alma mater has given you. Your success in the years to come cannot be controlled by her; it depends altogether upon yourselves—upon your own individual efforts. See to it that in after years you can look back upon this occasion with a sense of satisfaction, and not with the bitterness of a misspent life and wasted opportunities. There is much of gall and wormwood in the reflection that failure in life has been due to one's own lack of energy, to absolute neglect of brilliant opportunities. Your instructors have taught you to swim and have pointed out your course. Do not allow yourselves to sink from lack of energy to keep afloat or from a weight of vicious habits and self-imposed moral cramps.

As that dear old philosopher, Epictetus, said nearly two thousand years ago: "Remember that thou art but an actor in a play, and of such a sort as the author may choose. If short, of a short one; if long, of a long one. If your part be that of a rich man, a poor man, or a magistrate, see to it that you act your part naturally. For this is your duty, to act well the part which is given you." This was the source of one of Shakespeare's grandest inspirations; it is surely a worthy

theme for the young professional man on leaving his alma mater—"Do your duty; act well the part given you."

Two Cases in Practice.*

By W. J. Eddy, M. D. Shelbyville, Ill.

In general practice there are often obstacles arising that baffle all the ingenuity that can be brought to bear on the case.

We may be given what seems a full and complete history, and yet find later on that we have been given only a short sketch of the real history.

If we are looking for a certain thing, we are very apt to find it if it be present; but when looking and expecting to find a certain thing we should be careful not to pass over the trouble in an altogether different form and not notice it.

We meet difficulty in diagnosis at first that can only be cleared up by the post-mortem, which at times is very hard to obtain, as one of the cases here will illustrate:

Through the courtesy of Dr. Catherwood, I was called to see a case with him, the history of which is as follows: A lady 63 years of age, fairly well nourished and in reasonably good health, was taken suddenly, about two hours after her breakfast, with pain in the left inguinal region, followed by vomiting and general prostration. The doctor saw her some 3 or 4 hours afterward and could make out a small tumor or swelling at the seat of pain, and diagnosed the case as one of obstruction of the bowels.

As the case did not improve with any line of treatment, I was called in to help. My examination only confirmed that of Dr. Catherwood. There was a small tumor in the left iliac region, but no great tenderness or distension; the temperture remained normal but there was persistent vomiting and it began to have a fæcal odor.

From all the history we could get we could make out only obstruction. She gave a history of rather stubborn constipation that had existed for a number of years, and she also spoke of having had pains in the left side in the lower part of the thorax that had been called pleurisy pain and so treated; these pains were of frequent occurrence and on questioning her still more I brought out the fact that about 12 years before she had fallen on the left side and fractured 2 or 3 of the lower ribs; the 9th one showed a slight thickening extending back from the cartilaginous junction; such a history tho', a physician could not make much out of, but here was a case of obstruction of the bowel and must be relieved.

This we did by the use of compressed air followed immediately by a copious injection of warm water with the patient in the knee chest position. This following the air made general distension over the entire abdomen, and the little enlargement disappeared. The amount of water used was 4 quarts; the patient soon expressed a desire to stool and passed about a pint of water having a very slight fæcal odor when put on the vessel.

In about half an hour she began vomiting and threw up over a half gallon of water containing considerable fæcal matter. She vomited several times in the next 3 hours although she drank very little, then there was about 3 hours that she did not vomit.

The little enlargement that was at first felt in the bowel could not now be felt, and there was no tenderness but a slight tympanitis.

Putting her in the knee chest position we gave another injection of about the same quantity as before but did not use the compressed air; in about 10 minutes she passed about a pint at stool, and 10 minutes more she began vomiting and threw up a quantity almost equal to the amount we had injected.

This process was repeated several times with always the same results; food or liquid taken into the stomach would remain for about an hour and then come up.

There were no inflammatory symptoms but the gaseous distention of the bowels kept increasing. Here was rather a peculiar state of affairs, a patient constantly sinking from inanition, no chance to keep anything in the stomach for over an hour and that only by means of a hypodermic injection of morphine given at the same time. Nothing would pass through the bowels from the stomach and anything injected into the bowel would, in from five to thirty minutes be vomited up.

The question arose, "Would operative interference be justifiable?" and was answered in the negative as there was positively no obstruction at this stage, but simply a reversion of parastalsis. Our opinion was that the pressure from the obstruction that was the starting point, had produced a paralysis of the intestine.

In this way things progressed for eight days; fourteen from the first start when death released the patient and gave us a chance to solve the mystery by a post-mortem, which we proceeded to do twelve hours after death.

We opened nothing but the abdomen. The intestines had their proper position and natural post-mortem appearance; there were no adhesions over the anterior part, but on endeavoring to turn them out we found that about sixteen inches of the middle portion of the ilium was firmly adhered to the upper portion of the abdominal wall and lower border of diaphragm of the left side and the bands of adhesion were very dense and continued through the entire sixteen inches and the lumen of the intestine was contracted to about the size of admitting a large lead pencil, but there was no obstruction. The bowel above and below seemed normal. This portion seemed to have been paralyzed and that was all the explanation we could give of it. The pain she spoke of having in the side so often had been from the pulling on these adhesions that were evidently the result of inflammation from the traumatism in the side years before. If we had not had the post-mortem we should always have been in the dark as to just what the real nature of things were.

The other case that I wish to report is one that I wish to get the opinions of the gentlemen present on, as I did not get a post-mortem, and while I think things are clear in my mind, yet, perhaps, some others have met with something similar, and combined experience may give more light.

James R., twenty-two years of age, came to me three years ago to be treated for deafness of the left ear and a slight facial paralysis of the left side of the face. It took about three months treatment to give seemingly relief, but in three months more there was a slight return of it and also a slight diminution of

*Read at the Central Illinois District Medical Society at Pana, April 30th, 1891.

vision in the left eye, reading only $\frac{20}{70}$; this all improved under treatment, but as it improved there developed a slight, unsteady gait. I examined him very thoroughly. The family history was good, and the boy never showed or gave evidence of self-abuse or dissipation, and was well nourished.

All that he complained of was pain in the left occipital region, and that was only slight; but the staggering gait continued in spite of my treatment, and the vision failed to improve.

I diagnosed the case incipient locomotor ataxia, and as it was progressing steadily, I told him plainly that the probability was I could do him no good; he had then been under my treatment about six months all together, and as a natural result of my unfavorable prognosis, he sought other men that could give him positive assurance of a cure.

I lost all knowledge of him for about twelve months, when one day he came into my office bearly able to walk with the aid of two canes, and if he did not keep his eyes closely on his feet he would fall.

Yet he told me he was almost well, and the doctor told him he would be able to go to work in a few weeks.

This was an absolute falsehood, for the man was going into the grave as fast as he could stumble there. His visit to me was to have something done for his sight, if I could, as that was still failing some, though not much.

This time the ophthalmoscope gave a slight evidence of a choked disk in the left eye, but not in the right. This simply added to my former diagnosis—evidence of intracranial pressure. There was also present a numb feeling of the right side, but no lightning pain; yet the gait was characteristic of advanced locomotor ataxia.

The sexual desire that at first seemed slightly agravated had now disappeared.

I prescribed a glass that aided vision, but told him plainly that nothing would do any good permanently; this did not suit him, as the other physician had given him positive assurance that he would soon be well.

I lost him again for six months and then was sent for to go to see him, as his eyesight was failing very fast.

Again I found him as before, very much elated over the assertion that he was doing well and would soon recover. This time I found all the symptoms very much exagerated; he could not walk only as he was held up, and if he took his attention off his feet he would fall; he received quite a hard fall while I was examining him. I had him standing up and spoke to him in a way to attract his attention from his feet, and he almost instantly fell full length on the floor. At this examination I found choked disks in both eyes, vision entirely lost in the left eye, and very nearly gone in the right, marked loss of motion and sensation on the right side and some tingling on the left, hearing in the left ear very much diminished, in the right, fair; some pain over the left occipital portion of the head but not constant.

My diagnosis now was an intracranial tumor in the left occipital portion of brain extending downward and inward toward the fourth ventricle, together with the sclerosis of the cord, or possibly the tumor might be causing the tabes symptom.

After giving a positively unfavorable opinion to patient and friends, they then insisted that I should see him regularly. I told them that if the other physician could still give encouragement to keep him, so we both saw him together.

When I told them there was a tumor there they asked for an operation, but I could see nothing to be gained by it only the immediate death of the patient, and so refused, but continued to watch the patient until death, and the symptoms were those of pressure from a growth. The paralysis of the right side increased and also attacked the left; there was complete loss of sight four months before death; then came loss of power to use the limbs in walking or feeding himself at about two months before death. Then a month before he died he lost his hearing completely and a few days before the power of speech.

Sensation was not entirely obliterated until the day before death; the appetite remained fair throughout the entire time, and the bowels acted well; the urine, too, was passed naturally to the last. The day of his death swallowing became impossible, the liquid being regurgitated through the nose.

After all this patient waiting and watching we were denied a post-mortem, and for that reason I bring the case before you gentlemen for a diagnosis, having first stated mine.

In regard to the treatment I suppose he had all kinds and grades as he was under the hands of practitioners of all schools, and all failed.

Trusting that some of you have had or seen cases resembling this one in which you had a chance by post-mortem to make a positive diagnosis, I ask you for your opinion of this one.

Cannabis Indica as an Anodyne and Hypnotic.*

By J. B. Mattison, M. D.

Medical Director Brooklyn Home for Habitués; Member American Medical Association; American Association for the Cure of Inebriety; New York Academy of Medicine; N. Y. Medico Legal Society N. Y. Neurological Society; Medical Society of the Connty of Kings.

Indian hemp is not a poison. This statement is made just here, because the writer thinks a fear of its toxic power is one reason why this drug is not more largely used. This mistaken idea lessens its value, because it is not pushed to the point of securing a full therapeutic effect. This is a fact. One of the best pharmacologists in this country not long since expressed a very touching solicitude lest the writers advocating robust doses of this valued drug might cause a decrease in the census that would seriously imperil his professional good repute.

There is not on record any well-attested case of death from cannabis indica. Potter says: "Death has never been produced." Hare asserts: "No case of death from its use in man is on record." Bartholow affirms: "Cases of acute poisoning have never been reported. Stillé states: "We are not acquainted with any instance of death." Wood declares: "Hemp is not a dangerous drug; even the largest doses do not compromise life. No acute fatal poisoning has been reported." A prolonged personal experience, compassing the history of many cases—men and women—and

*Read before the Medical Society of the County of Kings, September 15, 1891.

hundreds of doses, ranging from thirty to sixty minims of the fluid extract, has never brought any anxiety along toxic lines.

Having thus brushed aside this bugbear, we may note, *en passant*, the statement, on high authority—Potter—that "cannabis was formerly much employed as an anodyne and hypnotic. It is now somewhat out of fashion." Why this early repute has not been continued, is due to a cause cited, coupled with nonreliable products, and doubtless, the coming of other analgesic-soporifics. The first cause need not longer obtain; the second can be removed by careful choosing and trial; while the last should not preclude the use of a drug that has a special value in some morbid conditions, and the intrinsic merit and superior safety of which entitle it to the place it once held in therapeutics. Digitalis, for a time, was in disuse. So, too, codeine, which my experience has proved a valued anodyne—one worthy a wider use than it has had, and which I think it will surely get—and impelled me to present the American Medical Association, at its last meeting, with a paper thereon, that I trust you have done me the honor to read.

There is a consensus of opinion among writers on therapeutics as to the anti-agrypnic analgesic and anæsthetic power of Indian hemp. For the latter it was used prior to ether. Wood, testing it in himself, asserted "marked anæsthesia of the skin all day." Stillé says: "Its anæsthetic virtue is shown in allaying the intense itching of eczema, so as to permit sleep." And that a similar seemingly trivial disorder may have a serious outcome is proven by the fact that a well-marked case of triple addiction, under my care last year—a medical man who took daily fifteen grains morphine with thirty-five grains cocaine, subcutaneously, and fourteen ounces of rum—had its rise in a morphia hypodermic taken to relieve urticaria.

Stillè says: "Its curative powers are unquestionable in spasmodic and painful affections." Noting the latter in detail, its most important use is in that opprobrium of the healing art—migraine. In a paper by the writer, eight years ago, "Opium Addiction among Medical Men,"—*Medical Record*, June 9, 1883—in reviewing the causes, this was asserted the most frequent. Enlarged experience has not changed that opinion. A case from such cause, woman, ten years morphia taking, thirty grains, by mouth, daily, is now under my care. A sister, so situated, from the same cause, awaits similar service; and their mother took morphia for headache till death ended her need.

Ringer says: "No single drug have I found so useful in migraine." He thinks it acts well in all forms, but seems most useful in preventing rather than arresting. He deems it specially effective in attacks due to fatigue, anxiety or climacteric change. Dr E. C. Seguin, in 1877, commended it highly.

Dr. Wharton Sinkler, in a paper on migraine, gives first place to cannabis, and thinks it of more value in this form of headache than any other. Richard Green, who first commended it in this complaint, thinks it not only relieves, but cures; in nearly all cases giving lasting relief.

In the *British Medical Journal*, July 4, 1891, Dr. Suckling, Professor of Medicine, Queen's College, Birmingham, writes: I have, during the last few years, been accustomed to prescribe Indian hemp in many conditions, and this drug seems to me to deserve a better repute than it has obtained." He calls it "almost a specific" in a form of insanity peculiar to women, caused by mental worry or moral shock, in which it clearly acts as a pyschic anodyne—"seems to remove the mental distress and unrest." After commending it in melancholia and mania, he says: "In migraine the drug is of great value; a pill containing one-half grain of the extract, with or without a one-quarter grain of phosphate of zinc, will often immediately check an attack, and if the pill be given twice a day continuously, the severity and frequency of the attacks are often much diminishes. I have met with patients who have been incapacitated for work from the frequency of the attacks, and who have been enabled by the use of Indian hemp to resume their employment." In a personal note from the doctor, he wrote: "I have used Indian hemp as an anodyne and hypnotic, and find it most useful in both ways. I have never seen any ill results."

Anstie commends it in migraine and the pains of chronic chloral and alcohol taking. In his work on neuralgia—the best ever written, and one which I advise every one to read, if not read—he says: "From one-quarter to one-half grain of *good extract* of cannabis, repeated in two hours, if it has not produced sleep, is an excellent remedy in migraine of the young. It is very important in this disease that *the habit of long neuralgic paroxysms should not be set up.*"

Russell Reynolds thinks that in neuralgia, migraine and neuritis, even of long standing, it is by far the best of drugs. Mackenzie has used it with much success in constant all-day headache, not dependent on anæmia or peripheral irritation. Bastian and Reynolds commend it in the delirium of cerebral softening, and the latter says it calms the head pain and unrest of epileptics. In cardiac tumult, in senile insomnia and delirium, and the night unrest of general paresis it acts well.

In some diseases common to women hemp works well. Grailly Hewitt says that in many cases of uterine cancer it allays or prevents pain. Ringer asserts it sometimes signally useful in dysmenorrhœa. West commends it here. Potter states that its anodyne power is marked in chronic metritis and dysmenorrhœa; and Hare thinks it of great value in chronic uterine irritation and nervous and spasmodic dysmenorrhœa. Donavan and Fuller claim it of value in migraine and chronic rheumatism; and Mackenzie in hay fever and hay asthma.

In genito-urinary disorder it often acts kindly—the renal pain of Bright's disease; in vesical spasm; retention of urine, and chordee; and it calms the pain of clap equal to sandal or copaiva, and is less unpleasant. The distress of grastric ulcer and gastrodynia are eased by it, and in other and varied neuralgias it serves one well. In some cases of advanced phthisis and other cureless disease it will bring euthanasia by allaying pain and unrest.

My experience with hemp covers more than a decade, many cases, and several pounds of fluid extract. It is proper to state that these cases have been solely habitués or ex-habitués of opium, chloral of cocaine. In these, often, it has proved an efficient substitute for the poppy. Its power in this regard has sometimes surprised me. Both sexes took it, and with some no other drug anodyne was used. One of these—a naval surgeon, nine years a ten grains daily subcutaneous morphia taker—recovered with less than a dozen doses. My oldest female patient—sixty-four—found its service complete. Its action has varied, as some cases respond more fully. This

during the early abstinence time. Later, it has done good in the post-poppy neuralgiæ, especially the cranial kind, and it has calmed mental pain and unrest.

As a hypnotic, Fromuller gave hemp in 1,000 cases. Success, 530; partial success, 215; no success, 253. As such as delirium tremens, Potter declares it "the best." Anstie thought it better than opium when the pulse is feeble. Phillips asserts it "one of the most useful." Tyrrell and Beddoe say the same. Suckling's opinion has been given. McConnell commends it in the insomnia of chronic cardiac and renal disease. Oxley lauds it in the insomnia of severe chorea, especially in children; the tincture "more effectual than any other hypnotic."

My own results prove it a satisfactory soporific, even oftener than as an anodyne. And this, too, under conditions that test thoroughly the power of any drug in this regard, for the insomnia of ex-poppy habitués finds its equal only in the agrypnia of the insane. With many, no other hypnotic was used. The sleep has been sound and refreshing. Many cases showed a notable influence to it as regards time—somewhat akin to sulfonal. Two hours sufficed. The first, pleasant stimulation; the second, increasing drowsiness, ending in sleep.

Again, I admit my special cases may involve a condition making them more easily subject to hemp hypnosis, but these do not preclude the wisdom of its trial with other patients in whom it may act equally well.

Writers on cannabis refer to certain peculiar effects—which, in our thinking, are more often peculiar to the patient—that may here be noted. One is a mild intoxication. I say "mild," because the hashish, assassin-like, running-a-muck form is less fact than fancy. It is said temperament largely determines the mental effect whether it be grave or gay, merry or mad. Most of my cases—when such—have been in a merry mood. Of the hundreds of times given, only once did it excite to violence. That was a young physician, six years ago, in which it came close to a personal assault on the writer that was warded off only by superior strength. The patient afterward avowed no knowledge of such a situation, was profuse in apology, and stated that once, after taking hemp simply to note results, he routed every one out of the house, including his own grandmother.

Catalepsy is a rare sequence. We have seen it once. A woman, 23, brunette, small but active, took, in early evening, 40 minims Squibb's fluid extract as a soporific. After playing cards half an hour, she began to be very jolly, and it was suggested she retire. Visiting her later, she was found completely cataleptic. It soon subsided, sleep followed, and no after ill-effect.

Failure with hemp is largely due to inferior preparations, and this has had much to do with its limited use. It should never be called inert till full trial with an active product proves it.

Wood thinks the English extracts best. I have used, mainly, Squibb's fluid extract. To a small extent, Parke, Davis & Co.'s Normal Liquid. They are reliable. Hare commends the solid extract made by the latter, and by McKesson & Robbins.

Merck has produced two elegant and efficient extracts—cannabine tannate and cannabinone. They are essentially hypnotic. I show you specimens. The former has been found by Prior, Vogelsgesang, Mendel and others, a satisfactory soporific. Prior gave it one hundred times to thirty-five persons—the most with success. In hysterical cases not calmed by chloral or opium, it acts specially well. In the small dose of one grain it has brought sleep when one-third grain morphia failed.

Another cause of failure is too timid giving. I am convinced that the dose of books is, often, too small. The only true way is, once a good extract, push it to full effect. My doses have been large—40 to 60 minims of the fluid extract—overlarge for the non-narcotic habitué; but, as we years ago asserted, habitual poppy taking begets a peculiar tolerance of other nervines, and they must be more robustly given. Both sexes have taken them—women frequently—with no other effect than quiet and sleep. I think, for many, small doses are stimulant and exciting; large ones, sedative and quieting. They are the outcome of an experience with smaller doses that failed of effect desired. They prove hemp harmless, and they add proof to the opinion of most neurologists that, once a nervine needed, it is often better to give one full dose than several small.

The tincture—three grains to the drachm—may be given in doses of twenty to sixty minims. The fluid extract, five to twenty minims. The solid extract, one-half to two grains. Tannate of cannabin, five to fifteen grains. Cannabinone, one-half to one and one-half grains. Cannabinone with milk sugar, five to fifteen grains, and each repeated or increased till a full effect is secured. It is said that in women cannabinone acts twice as strongly as in men. In headache, periodical or long continued, one-half to two grains solid extract may be given each hour or two till the attack is arrested, and then continued in a similar dose, morning and night, for weeks or months. It is important not to to quit the drug during a respite from pain.

I close this paper by again asking attention to the need of giving hemp in migraine. Were its use limited to this alone, its worth, direct and indirect, would be greater than most imagine. Bear in mind the bane of American women is headache. Recollect that hemp eases pain without disturbing stomach and secretions so often as opium, and that competent men think it not only calmative, but curative. Above all, remember the close genetic relation of migraine relieved by opium, to a disease that spares neither sex, state nor condition.

Dr. Suckling wrote me: "The young men rarely prescribe it." To them I specially commend it. With a wish for speedy effect, it is so easy to use that modern mischief-maker, hypodermic morphia, that they are prone to forget remote results of incautious opiate giving.

Would that the wisdom which has come to their professional fathers through, it may be, a hapless experience, might serve them to steer clear of narcotic shoals on which many a patient has gone awreck.

Indian hemp is not here lauded as a specific. It will, at times, fail. So do other drugs. But the many cases in which it acts well, entitle it to a large and lasting confidence.

My experience warrants this statement: cannabis indica is, often, a safe and successful anodyne and hypnotic.

Brooklyn Avenue, Brooklyn.

Stone in the Bladder.

Dr. J. J. Maxfield, in *The Practitioner*, reports a case of vesical calculus treated with Buffalo lithia water for nine months prior to the operation of lithotomy. One quart of the water was taken daily and the bladder was washed out with it as frequently. Numerous fragments were passed by the urethra but none were saved. At the operation the stone was found to be well nigh disintegrated from the action of the water. It was crushed and removed. Its consistence resembled that of putty mixed with sand. On exposure to the atmosphere the fragments became hard. The accompanying cut shows the appearance of the fragments. If the treatment with the lithia water had been continued a few weeks the stone

would have fallen to pieces. As it was the lithotite could have been used, the stone crushed and the fragments washed out through the urethra. The case is unique and shows the value of Buffalo lithia water.

Gout and Rheumatism.

From *The Weekly Medical Review*, May 30, 1891.

There can be no possible doubt that, despite the different opinions in regard to the cause of gout and rheumatism, alkalies exercise a very good action, and tend to relieve the system of that hyperacidity which seems to be always present. In this administration of alkalies, some care is to be exercised in order to avoid those disturbances of the digestive system which may come on as a result of their continued administration. Among the best of the alkalies is lithium and its salts. Some, however, contend that its combination with other alkalies make its action more sure and effective. A combination devised by an eminent practitioner is as follows:

℞	Lithium benzoate, - -	gr., 12.823.
	Lithium bicarbonate, -	gr., 13.784.
	Potassium bicarbonate, -	gr., 10.000.
	Sodium chloride, - -	gr., 10.000.
	Carbonated water, - - -	℥xvj.

M

This makes a palatable effervescing mixture which is very grateful to take, as well as effective in action. Of course, it is impossible to prepare this extemporaneously. Dr. Enno Sander has made the above in his usual thorough manner, and has named it Benzoated Lithium Water. Being palatable, it is taken by patients with a certain relish, and the peculiar taste of the alkalies does not manifest itself, being completely covered by the carbonated water.

Dr. A. H. Ohmann-Dusmenil.

Etiology and Pathology of the Pneumonias.*

BY J. CHRIS LANGE, M. D., PITTSBURGH, PA.

Mr. President and Gentlemen.—There are, in medical literature, more than thirty terms used to qualify the inflammation called pneumonitis, and some confusion as to the seat, products and nature of this process is a result. The endeavor to classify these inflammations can be successful only from the standpoint of the lesion, *i. e.*, their macroscopical and microscopical appearances; and while it is true that, clinically, and pathologically also, there is no absolute line of demaraction between them, it is equally true that every inflammation of the lung presents lesions sufficiently characteristic to justify its holding a place in one of three classes. Nevertheless, these classes are not anatomically distinct, and it is important to recognize their relation to each other and the very close relationship all hold to phthisis; for phthisis consists essentially of pneumonias—is an inflammatory process always and involves the substance of the lung always.

These three classes present the following characteristics:

CROUPOUS PNEUMONIA.

Coagulable fibrinous exudation.
Seat in the air cells, extension to the ultimate bronchiole.
Involves one or more lobes.
Usually unilateral.
Acute.
Primary.

CATARRHAL PNEUMONIA.

Non-coagulable exudation:
Seat in ultimate bronchiole, extension to air cells.
Involves the cones supplied by one or more bronchia tubes in each lung.
Bilateral.
Acute or chronic.
Secondary.

INTERSTITIAL PNEUMONIA.

Hypertrophy and contraction of connective tissue.
Seat in connective tissue.

*Read before the Allegheny County Medical Society, September 15, 1891.

Involves part of one or more lobes in one or both lungs.

Unilateral or bilateral.

Acute or chronic.

Primary or secondary.

An endeavor to bring into these three classes all forms of this inflammation, clinically so very different, results in the following table:

Croupous Pneumonia	Lobar. Genuine. True. Fibrinous. Pleuro-pneumonia. Central. Crossed. Typhoid. Bilious. Traumatic. Narcotic. Cerebral. Epidemic. Endemic. Drunkards. Senile. Delayed.
Catarrhal Pneumonia	Lobular. Broncho-pneumonia. Tubercular. Cheesy. Inhalation. Deglutition. Hypostatic, Typhoid. Drunkards'. Senile. Childrens'.
Interstitial Pneumonia	Fibrous. Contracting. Sclerotic. Atrophic. Syphilitic. Pneumonia alba.

Senile and drunkards' pneumonia may be croupous or catarrhal. The same is true of typhoid pneumonia which is so called when, not typhoid fever, but the "typhoid state" is present. The pneumonia of children under eight is almost always catarrhal; over this age the liability to the croupous form increases with each year. Delayed resolution pneumonia is applied to a form of croupous imflammation in which the exudate is not liquefied and absorption is delayed. Cerebral pneumonia is croupous, and follows concussion of the brain particularly in children. Narcotic pneumonia is croupous, and follows recovery from opium poisoning. Bilious pneumonia is so qualified when the patient presents the slight jaundice resulting from congestion of the liver by contiguity to the inflamed lower right lobe of the lung. Central pneumonia lacks the stitch until the inflammation reaches the periphery and adds the fibrinous pleurisy. A crossed pneumonia involves the upper lobe of one and the lower lobe of the other side. Traumatic pneumonia is croupous, and follows concussions of, or blows upon, the thorax.

The etiology of croupous pneumonia is not determined. The proposition that it is an acute infectious disease, the micrococcus of Friedlander being its pathogenetic agent, rests upon laboratory experiments, clinical facts, and observations of considerable weight, and is deserving of all consideration. Croupous pneumonia if infectious, all other alleged cases fall to the rank of predisposition. Weather vicissitudes, heavy lifting and blows upon the chest, which are almost always considered to constitute the cause of the inflammation, must be considered when followed by the chill and stitch as coincident only, the inflammation having begun previous to such exposure. Every physician has knowledge of cases of which this is an improbability. But it is always a possibility. Endemics of pneumonia, and some have been malignant, are most readily explained by infection. The same is true of epidemics, allowing that the identity of the element of the atmosphere which has been believed to be causative of pneumonia is unknown to us; that it is neither cold, humidity, altitude, electrical influence, nor fall or rise of temperature, it becomes impossible to explain epidemics, endemics and perhaps all croupous pneumonias, except by infection. The fact that individual predisposition is established; that age has an influence, and that the inflammation occurs presenting the phenomena common to infectious diseases—for instance, the "typhoid state"—is additional evidence in favor of infection.

On the other hand, every physician is familiar with cases in which the seemingly obvious causes of the inflammation were exposure, concussions, etc., and he has frequently verified the potency of the predisposing causes—alcoholism, poverty, gout, rheumatism, Bright's disease, etc. Again there is the undeniable frequency of croupous pneumonia in areas whose climate is marked by rapid and frequent changes of humidity and temperature; and its undoubted frequency where and when other inflammations, such as coryza, tonsillitis and bronchitis, prevail. In addition Friedlander has not always found the capsule-coccus in croupous pneumonia and identical cocci have been demonstrated in other conditions. Talamon has produced pneumonia by the injection of this coccus, but also by injection of other cocci; and Friedlander himself now admits that the distinguishing capsule of the pneumo-coccus may be simply accidental—an imperfection of staining or decolorization. These facts leave the etiology of croupous pneumonia undetermined.

The point of departure from the normal in croupous pneumonia, the primary histological process consists of injury and partial destruction of the pavement epithelium of the air cell and ultimate bronchiole produced by the cause—be this specific or not—of the disease. The anatomical process consists of the filling of air cells and bronchioles with a hæmorrhagic coagulable exudate, and since the time of Lænnec is described in three stages, viz.: engorgement, active congestion of the pulmonary and bronchial capillaries; red hepatization, the time of the coagulated exudate and gray hepatization, the time of its liquefaction. During the latter stages the lobe, excepting its bronchial tubes, is airless, friable, enlarged and increased in weight by from two to three pounds. These three stages having been accomplished, the liquefied exudation is absorbed and a rapid and complete restoration follows in a majority of cases. In a minority of cases this does not happen, and we recognize a fourth "stage of purulent infiltration." And by the occurrence of this stage we appreciate the close relationship

of croupous pneumonia to phthisis. This fourth stage is chronic pneumonia, or abscess, or gangrene.

By a termination in chronic pneumonia is understood an hypertrophy of the pulmonary connective tissue, due to its irritation by the inflammation or exudate, or both; and although the exudate is entirely or almost entirely absorbed, its presence during the inflammation, or the inflammation itself, has been an irritant sufficiently active to begin this connective tissue, hyperplasia. And it continues. In other words, such a croupous pneumonia is transformed to a pneumonia of the third class, an interstitial pneumonia, and under that head its further progress will be noted.

If the termination of the fourth stage be in gangrene, which is usually found in isolated small portions of the lobe, then there has happened an additional new infection by a putrid substance. If recovery ever happens in such a case, it can be only by an hyperplasia of connective tissues—i. e., by an interstitial pneumonia.

If the fourth stage terminates in abscess, then again, interstitial pneumonia is the only possible process of restoration. Whether the occurrence of abscess depends upon a new infection, or whether this may exceptionally happen from the presence of the croupous exudate is not definitely determined.

Catarrhal pneumonia is not, like the croupous form, a distinct disease. With the exception to be mentioned, it is always preceded by bronchitis. This bronchitis may be primary; but primary mild bronchitis is rarely followed by catarrhal pneumonia. This is a frequent result, however, of the bronchitis of whooping cough, measles and influenza, which is intense and, extending, becomes pneumonia. Any violent or prolonged bronchitis, particularly in the young, the old and the feeble, deserves high rank in the etiology of catarrhal pneumonia.

Another cause is the bronchitis common during the existence of grave and protracted diseases. Here all conditions are peculiarly favorable for the occurrence of the extension of bronchial inflammation. Everywhere in the air passages, as well as in the mouth and pharynx, particles of food, mucus and saliva collect and remain. This is favored further by the constant dorsal decubitus. Fungi and bacteria, decomposition agents, find everywhere conditions favorable to development and increase. From upper situations they are drawn downward, invade the fine bronchioles, producing catarrhal pneumonia. Many patients have difficulty in swallowing; frequently they choke; frequently they inhale particles of food, secretions or mucus, and do not, like those who are well, cough up. Such particles remain, decompose, and originate bronchitis and its extension, catarrhal pneumonia. This is the explanation why this inflammation occurs so frequently in diseases entirely dissimilar. It happens especially in patients with stupor, in severe typhoid, in meningitis, and in bulbar diseases where cough and deglutition are impaired. So originating these inflammations have received the names inhalation and deglutition pneumonias.

A constant dorsal decubitis in conjunction with a weak heart is a third cause of catarrhal pneumonia. This is probably the only manner in which this inflammation can be induced without a preceding bronchitis. The first step is a passive congestion limited to the posterior borders of both lower lobes; very soon there is added to this an œdema equally limited; congestion and œdema is spleenization, and this induces the inflammation characteristic of catarrhal pneumonia, this being called hypostatic. This different origin is followed by an anatomical difference between this hypostatic and all other catarrhal pneumonias. It is that all other forms must necessarily be located about the ramifications of the bronchial tube from which they originated—*i. e.*, must always exist in cones—while this hypostatic pneumonia is not so limited, but involves adjacent alveoli, independent of their bronchial supply, from the lower border of both lungs, a little or a great way up. Although each of these pathogenetic conditions is entirely competent to produce catarrhal pneumonia, two or all frequently act together.

The termination of catarrhal pneumonia, when this is not restoration, is abscess, gangrene or the so called "transition to tuberculosis." Abscesses, when small and not numerous, may be emptied through bronchia, interstitial pneumonia then obliterating the cavities or become encysted and cretified, forming lung stones. Both results are innocuous. Gangrene requires a special additional infection. There remains the "transition to tuberculosis."

What is here said applies to abscess following croupous as well as catarrhal pneumonia. Excepting that the abscesses in the former may be confined to one lobe, while in the latter they may be upon both sides, they proceed substantially upon the same course and terminate in the same manner. Both are nontubercular phthisis. Both present consolidation; the first consists of pus and the lung tissue involved in the abscess, the last of caseation of the catarrhal exudate and the lung tissue it embraces. Both soften, break down the involved lung tissue, and are excluded through the bronchia. Both leave cavities which enlarge by peripheral ulceration, and both conduct their victims to death by exhaustion from hectic and hæmorrhage.

There should be now no question of a "transition to tuberculosis." With our present knowledge we can understand perfectly well how cavity ulceration conducts patients to death without the assistance of tubercle; and the time is past when every cheesy nodule must be tuberculous. Nontubercular phthisis following croupous and catarrhal pneumonia deserves and now has recognition as a destroyer of mankind. Although there can be no "transition to," there frequently is infection by tubercle. Everything, all the conditions in abscess, whether this follow croupous or catarrhal pneumonia, is most favorable to infection, and, therefore, the termination in a majority of such cases is in tubercular phthisis.

Further, patients with indiscoverable tubercular deposits are, like all other persons, subject to croupous and catarrhal pneumonias; in such a case, the pneumonia, if it terminate in phthisis, this latter will, of course, be tubercular. Therefore, tubercular phthisis, when it follows a pneumonia of either variety, depends upon a pre-existing, perhaps undiscoverable tuberculosis, or the patient is infected with tubercle during the time of existence of the pneumonia. In either case there can be no question of transition.

Interstitial pneumonia, finally, is a low and chronic inflammation situated in the pulmonary connective tissue, which tissue, according to its situation, is called intercellular, interlobular, peribronchial, perivascular and subpleural. Inflammation of this tissue

is provoked by any irritant, and its intensity and extent depend upon the activity and persistency of the irritant. It is frequently a beneficent, a compensatory process. This is so when it obliterates abscesses, encapsules cheesy nodules, insulates hæmorrhagic infarctions, or closes phthisical cavities. Then it holds the place of a cicatrix of the skin, and is compensatory and beneficent. But it is frequently also a most malignant growth and destructive of air cells, blood vessels, bronchial tubes and all lung tissue. For its inflammation produces an hyperplasia an hypertrophy and, like young connective tissue in every situation, contracture; so that frequently the lung effected by its proliferation and contracture—i. e., by pressure—becomes a hard, fibrous, airless, white mass, with distorting bands running through it in every direction. And this property and action constitutes its relationship to phthisis. By its distortion and occlusion of bronchial tubes, these latter dilate between their point of injury and their origin forming bronchiectases, which dilatations become secretion depots. Their contents are infected and soon putrescent. Then peripheral ulceration of the dilated tube walls begins; the bronchial wall is perforated, and a cavity in the substance of the lung results. This is fibroid phthisis.

The irritants which produce this malignant train of processes are especially three, viz; iron, coal and stone; and for this reason this disease has been called iron or stone or coal lung, and knife-grinders', consumption and mechanical phthisis.

Particles of iron, coal or stone are found in the pulmonary connective tissue; for, though penetration through the bronchial wall is impossible where this is armed with ciliated epithelium, this defense ceases at the ultimate bronchiole and aircell, and it is here these irritants penetrate and are followed by the disastrous results indicated.

Irritants less sharp and less persistent induce a lesser degree of inflammation. For instance, an abscess resulting from croupous or catarrhal pneumonia irritates its surrounding connective tissue only to the extent sufficient to empty and obliterate the abscess and to form a cicatrix of its walls. A cheesy nodule irritates it to the degree necessary to produce an encysting capsule. A phthisical cavity also is contracted, emptied and cicatrized by this tissue in consequence of the irritation itself produces. Cicatrization or encapsulation having happened in this manner, no irritation remains, and hyperplasia ceases. This does not happen invariably, however; sometimes this process continues, and, when so, destruction of lung tissue by pressure and distortion, and by cavities of bronchiectases, follow.

A very decided interstitial pneumonia, usually not advancing to phthisis, however, frequently follows chronic pleurisy and empyema; here the large area of subpleural connective tissue has been irritated by the adjacent inflammation and suppuration, and some hypertrophy and contraction follow. This is probably, at least a factor in the prevention of complete expansion of the lung after an empyema has been cured. Also a limited interstitial pneumonia is common in the peribronchial connective tissue around such tubes as have been long involved in a chronic bronchitis. In short, interstitial pneumonia signifies a process often reparative and compensatory, and fibroid phthisis the same process pregnant with a slow but sure destruction of lung tissue.

Proceedings of Societies.

ALLEGHENY COUNTY MEDICAL SOCIETY.

Scientific Meeting, September 15th, 1891.

T. D. Davis, M. D., President, in the Chair.

The subject of the evening, "Etiology and Pathology of Pneumonias," was opened by Dr. Lange, after which the following discussion:

Dr. Kearns: I wish to congratulate the doctor on his paper, which was both entertaining and instructive. It should stimulate us to greater care and perseverance in the diagnosticating these different forms of pneumonia. One of the classifications spoken of by the doctor has been but recently established, and that is traumatic pneumonia. It has been contended by men of very great experience that there was no real traumatic pneumonia or pneumonia from an injury or wound, but Dr. Lange has established beyound doubt from his observations that there is a traumatic pneumonia, finally resulting in an abscess. The doctor has very completely presented the subject.

Dr. J. D. Thomas: In the main I agree with all the gentleman has said. There are, however, two points of comment which I desire to make.

One is the defective logic in the statement made, if I understand him correctly, that all cases of acute lobar pneumonia depended upon the diplococcus of Frankel or they did not. We may have an acute pneumonia following a trauma; it is undoubtedly a pneumonia, but it does not depend upon the pneumonia micrococcus. The other point is, that there is a variety of pneumonia, and I have observed some six or eight of such cases, not mentioned in the paper; neither have I seen a description in any work or paper of the variety to which I wish to draw your attention. I can probably give you a better idea of the disease by describing a case. You are first called to see the patient a week or ten days after the illness began—the onset being insidious. Pain is complained of in the lung. There is fever, but not very high. There is an accelerated pulse, but not very rapid. The temperature will be about 101° Fahrenheit, and the pulse about 90. On percussion there is *flatness*; on auscultation no sounds are heard. You at first suspect pleuritis with effusion. You change the position of your patient but no change is produced in the line of flatness; the bronchial tubes as well as the air cells appear to be filled with the exudate. As you follow the case the flatness passes further up the chest, and with this increased area of flatness the air sounds disappear. The process is a slow one occupying weeks. As repair takes place the flat sound passes to dull, and so on; air enters the tubes and cells, and in time you get the subcrepitant rales, but it may be a year or more until all evidence of the disease has disappeared. The signs first begin from below, and first disappear from above.

After having observed a case or two of this disease I was requested by Dr. Case to see a patient that puzzled him. Although he had been in attendance for some time he was unable to classify the disease—

it was neither a pneumonia nor a pleurisy. After examining the case I recognized it as of the variety that I this evening present, aud made a favorable prognosis. After a long while the patient recovered.

Dr. Buchanan: I would ask the speaker whether he made any exploratory punctures to see whether these were not cases of encysted pleuritic effusion.

Dr. Thomas: I did not because I did not think it was necessary to do so. I did not find any evidence of pleurisy, and with effusion into the pleural sac, you would always get a change in the dullness with regard to the change of the patient. If it was pleurisy you would not get the uniform symptoms all over the lung that you do in these cases.

Dr. Buchanan: I can understand how in cases where the lung had become adherent to the chest wall from a former pleurisy, fluid would start at the lower portion of the lung and gradually fill up and push the lung ahead of it and give just the signs that the gentleman has spoken of. I think that view of the case would more nearly meet his description than any form of pneumonia that is recognized.

Dr. Grube: There is one statement made by the writer I would like to call attention to, and that is the statement that pnuemonias of children under eight years of age were almost always catarrhal. I know this is the older idea, and in all the older works the statement is made, but I think it is not true. It might be true between the first and second year but certainly not between the second and eighth. I think that between the second and eighth years croupous pneumonia is more often found than the catarrhal variety. I think this older idea was obtained through not making a careful diagnosis, and from the fact that catarrhal pneumonia almost always affects both lungs.

Dr. Koenig: I was gratified to see the noncommital stand the writer has taken with regard to the causation of what he is pleased to term croupous pneumonia. I have never been able to reconcile myself to the theory of bacterial origin. It requires but one argument to my mind to displace that theory, namely, that we can cure, that we can abort pneumonia, with remedies that have no destructive power over germs.

I think there are few general practitioners here who have not seen cases of acute lobar or croupous pneumonia aborted under the influence of powerful antiphlogosis. Be it tartar emetic or aconite, or veratrum viride, no matter what the remedy may be, the action is identical. This counteracts the too great effort that nature is making in repairing damage that has been done to the lung tissue. Some years ago an article appeared in the *New York Medical Journal* on the causation of pneumonia in which a very ingenious theory was advanced. The writer claimed that pneumonia was a disease produced as a result of certain atmospheric conditions; namely, that when air was very dry it would absorb moisture from the delicate aircells very rapidly and produce a deposition of chloride of sodium which in that concentrated condition would destroy the epithelium. This theory seems to me plausible. The bacteria find a fertile soil when once the walls of the aircells are injured, and at once too much blood is sent to that very vascular part of the body, and instead of repairing the damage, nature does more damage still by the overengorgement of the lung tissue, which increases till hæmorrhage into the aircells takes place. I firmly believe, in fact I have convinced myself, that if the heart's action is restrained so that just sufficient blood is sent to the lung to repair the injury, nearly every case will be cut short if treated in the first two or three days after the original injury to the aircells.

Dr. Batten: In regard to the etiology of pneumonia, the last gentleman on the floor asserted that a case of pneumonia can be controlled with drugs. Now, we all know that typhoid fever is caused by germs, and it may be said that typhoid fever can be controlled also by drugs, but if we have a case of pneumonia in a place where the hygienic conditions are not good as a rule, the drugs which we give will not very much benefit the patient; but if we have a case of pneumonia in a place where the hygienic conditions are good, the probability is that with a little treatment the case will recover. So that this question of the germ theory would not hold in pneumonia. I believe that pneumonia is caused by a germ and that the life of the patient will depend very much upon the environment of the patient.

Dr. Green: I am thankful that the paper has classified pneumonia, and I am thankful that they are corralled in three classes; in fact in treating cases of pneumonia, we still meet with very great obstacles. However, I was pleased with the classification of the doctor from the fact that he seemed to be governed in the classification generally by the locality of the disorder, as much if not more than by the origin or cause of the disorder. In looking over the reports of pneumonias the mortality rates under the different treatments show no different percentum.

Another matter of which I wish to speak is in regard to microbes giving origin to pneumonia, and also to the infectious character of the disease. Now, it is a very difficult matter for the general practitioner to decide whether or not all cases are infectious. I fully believe that the vast majority of cases are infectious but I cannot see how they are all infectious; I am unable to see from the classification given by the different writers, and from the history of the cases of the epidemics of the different classes of pneumonia, that all classes are infectious. Everybody had a large number of patients, and nearly every practicing physician had a very great variety under his charge and in looking about for some reliable method, I found that by some writer, I have forgotten his name, the inhalation of chloroform was recommended. I used chloroform as often as every three or four hours for three days. In this case the patient seemed to recover promptly. I also used in a few cases large doses of digitalis with good results and in one instance with a bad result. The doctor did not refer exactly to the treatment of pneumonia, but granting that pneumonia is brought about by the presence of the germs, or micro-organisms, we fail to find any where recorded in the recent writings a case where treatment has even modified the case to any noticeable extent. I will relate an incident: In a hospital, in four of the beds were cases of typhoid fever and in the remaining bed a patient suffering from pneumonia was placed; he only lasted about forty-eight hours after his admittance. The cases of typhoid fever ranged from the tenth to the twenty-first day. Within five days these four patients took pneumonia and three of them died. The other one was then removed and we gave the room a thorough cleaning before any other was admitted. That seemed to me positive evidence of infection. I can recall another instance of a family

of five where four members of the family were taken down with pneumonia within ten days. The house was well ventilated and well heated, and I think clean. That appears to me to indicate that some cases of pneumonia are very much more infectious than others, with the surroundings and the sanitation good.

Gunshot Wound of the Brain.

At the meeting of the New York State Medical Association Dr. John Cronyn reported the following case of gunshot wound of the brain. The patient was a boy. The ball entered the forehead on the left side, above the orbit; he was supposed by the parents to be dead. When Dr. Cronyn probed the wound the instrument entered the brain, came in contact with the bullet, caused a click, and the ball moved backward. This was followed by twitching of the limbs, respiration, and signs of returning life. The third day the boy became conscious. He seemed not to know what had happened. The right arm and leg were paralyzed. Within three months he was able to be up; the paralysis was much better, he made great efforts to speak. Before the accident he had been able to read, write, and cipher, but on recovery he had lost all recollection of the alphabet and had to learn it over again, but his capacity for calculation had improved tenfold. In due time there was complete restoration to health; one could scarcely recognize where the ball had entered, and when he presented the boy at a medical society doubt was expressed whether he had ever sustained a gunshot wound on the head. Nine years and a half after the first accident the boy was struck on the opposite side of the head, died in a few days, and the coroner found the old bullet sacculated in the posterior portion of the left hemisphere, lower in the brain mass than the point of entrance. Careful search was made for the track of entrance, but no trace of it could be found. The case was of interest psychologically, and as showing the tolerance of the brain.—*Med. Record.*

Hypnotism in Surgery.

A female patient under the care of Mr. Hare, in Ancoats Hospital, Manchester, was suffering from anchylosis of the elbow joint of long standing, for which excision was performed. In spite of early passive movement after the operation, the joint again became immobile in an extended position. The patient was then hypnotized by Mr Mursell, the resident surgeon, and was told that she could bend the arm without pain. This she did, and the suggestion remained effective for several days. She was again hypnotized and the suggestion repeated, with the effect of procuring perfect power of motion in the joint.—*Lancet*, September 26, 1891.

Inebriety is curable in nearly all cases in the early stages. After repeated poisoning or intoxications for years, conditions of degenerations come on, from which recovery is very rare. The drink impulse may die out, or be permanently checked, but the injury to the brain and nervous system remains.

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., ASSOCIATE EDITOR.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

The Mississippi Valley Medical Association met in St. Louis Oct. 15, 16, 17. The meeting was the most successful thus far held and reflected great credit on president Hughes and the only Dr. J. N. Love. St. Louis knows how to entertain and she did herself proud on this occasion. We wish to express our hearty appreciation of courtesies received at the hands of Dr. Geo. F. Hulburt and his beautiful and accomplished wife, both for their attention to us personally and for the successful efforts which Mrs. Hulbert made to entertain the visiting ladies. The president for '92 is Dr. C. A. L. Reed of Cincinnati.

The Keeley Cure.

The New York Sun and *The Chicago Herald* stand alone among the great daily newspapers in demanding that Dr. Leslie E. Keeley prove himself the benefactor of mankind, which he claims to be, and make public his treatment for alcoholism. In an interview published in an evening paper in this city recently, Dr. Keeley posed as the possessor of a secret revealed by the Most High for the good of the mothers, wives and sisters of men. In this *The Herald* sees cant, pure and unadulterated, and says so in the plainest of English. Just as these powerful moulders of public opinion take so decided and reasonable a stand comes the news of the death of Col. Mines, the most noted apostle of the "cure." The current number of the *North American Review* contains an article by Col. Mines describing the treatment and lauding the inventor in the highest terms. At the time the *Review* went to press Col. Mines was rolling in the gutter from which he was fished, sent to Blackwell's Island where he died from alcoholism. He belongs to the "5 per cent," for whom Keeley claims there is no cure. Returns from other members of the "5 per cent" will continue to come in. Dr. Waugh finds good in the agitation of the Keeley cure because it will attract attention to the treatment of inebriety and to the work done in that specialty by Crothers and others. The public will learn in time that there are men in the ranks of the regular profession who are not the possessors of revelations from On High, but who, nevertheless, treat and cure inebriates.

In the election of Dr. Frank W. Reilly to succeed Dr. Rauch as secretary of the State Board of Health. The members of the board have done themselves credit and strengthened the public's belief in their intentions to guard most faithfully the interests confided to them. Dr. Reilly is a gentleman of wide culture and a varied experience. As a surgeon in the field, a representative of the National Board of Health and latterly as managing editor of *The Morning News*,

he has shown himself the possessor of all requirements necessary to success in any undertaking. The State of Illinois has no official who will discharge his duties more capably or efficiently than will the new secretary.

Arsenite of Copper.

The reports of the various physicians using arsenite of copper in intestinal troubles remind one of the old woman's test for indigo. "Put it in water and it's good if it sinks or swims, I don't remember which."

Decision of Judge Thayer

In the Suit of Eissner & Mendelsohn vs. Enno Sander, October 16th, 1891.

Thayer, District Judge (orally)—In this case an application, supported by affidavits, is presented for a preliminary injunction to restrain the defendant, pending suit, from selling an artificial mineral water which is termed "Tenfold Carlsbad Water." The complainant, the city of Carlsbad, is the proprietor of the celebrated spring from which natural Carlsbad water is taken. Loebel Schottlander and others, the other complainants, have a license to sell the natural water in the United States—the exclusive right to sell in the United States—and also to sell Carlsbad salts that are evaporated from the water. Dr. Sander has been manufacturing for the past five years a water which he brands and sells as "Tenfold Carlsbad Water." The main ground upon which the complainants in this case ask the court to grant a preliminary injunction seems to be this: that the complainants have the exclusive right to the use of the term Carlsbad, not only as applied to natural water, but also to artificial. It is sufficient for me to say as to that contention that the affidavits do not satisfy me that it is well founded. I shall not at this time decide definitely that the complainants have not the exclusive right to the use of the term, both in its application to natural and artificial water, but on the present showing I think it probable that the right is not exclusive so far as artificial waters are concerned.

Another ground upon which the court is asked to grant an injunction is this, that even though the complainants have not the exclusive right to the word as applied to artificial waters, yet that the use of that word in the manner in which the defendant uses it is calculated to deceive the public, that the use of it by him was intended for that purpose, and that an injunction should be awarded on the ground of fraud.

It seems to have been on that ground that Judge Blodgett, in a suit by these same complainants against Thackeray & Co., recently granted a preliminary injunction in the Northern District of Illinois; and it was on that ground that the vice-chancellor granted an injunction in the celebrated case of the Appollinaris Company vs. Norrish, Law Times Rep. U. S., 242.

The case that Judge Blodgett had before him was a bill to restrain the defendants from selling artificial salts as Carlsbad salts. It was not a suit to restrain the sale of artificial water. He seems to have found on the evidence before him that the artificial salt was liable to be mistaken by purchasers for the natural salt produced by evaporation, which the complainants have an exclusive right to vend.

Now, in this case, I certainly cannot find that the public is liable to be deceived by the use of the term "Carlsbad" as Dr. Sander makes use of it, or that the same is used with that intent. The very form in which he uses the term "Tenfold Carlsbad Water," in large conspicuous letters, would seem to me to indicate to any one of average intelligence that it is not the natural water.

I am of the opinion, therefore, that this is not a case in which the court can grant a preliminary injunction upon the ground that the defendant is perpetrating a fraud upon the public by intentionally representing his wares to be those of some other manufacturer.

This being merely a decision upon a motion for a preliminary injunction, what I have said upon the subject will not be regarded as conclusive. The complainants will have an opportunity to show, on final hearing, that I am in error as to either of these propositions now decided.

The motion for preliminary injunction is overruled.

Miscellaneous.

Heredity.

Now if it be true, that through impressions made upon the embryo or fœtus through the maternal mind, results in all manner of physical monstrosities; yea, more, if it be true that not only physical deformities may result from arrest of development or mental shock, but that even organs already formed may be disintegrated, through powerful mental impressions made through the maternal mind; and if so much of the physical depend upon this cause, how much more of the mental make-up may depend upon this? How many criminals may attribute their criminal tendencies to this source? How many murderers, when upon the scaffold, in place of attributing their downfall to evil habits and evil associations, might not truthfully attribute their disposition to commit murder to some secret desire of the mother to commit murder, stamping the fatal impress upon her unfortunate offspring; or, perchance, he might truthfully attribute his murderous appetite to the practice enforced upon the majority of rural housewives, of murdering the domestic fowl. Or again, how many of our boys and girls owe their desire for strong drink or artificial stimulation to the sudden appetite that often springs up with the soon-to-be mother, for strong drink? Or again, how many of our thieves owe their peculiar tendency to purloin to some sudden desire to purloin that overtakes the mother during her gestation? You will remember that the act actually perpetrated by the mother would not impress the child in utero so much as would the mental desire. So with many other peculiar traits of character.—Dr. Stranghan.

Journal of Inebriety.

Some Things Ordered at the Druggist's.

A well-known Philadelphia pharmacist has recently received the following written orders for medicine: A dose of castoroil for a child aged fifteen. Be sure and send enough to work her good. One dozen two-

ounce quinine pills; one bottle honeatta water; a boo gee; one box of Brandteth's pills, sugar quoted. Please send enough appecac to throw up a four months old baby; two five-grain blue mask pills; ten cents worth of partisapated chalk.—*Med. Record.*

To these a Chicago pharmacist adds "ox vomit" and "wormifuge."

Pental.

The name of the newest anæsthetic is pental. Its inventor is Professor Von Mering, Director of the Medical Polyclinic in Halle. He observed, four years ago, that the tertiary amyl-alcohol produces a soporific effect, and since then it has been in use as a hypnotic. It occurred to him that the amyl corresponding to amyl-alcohol might be fitted for anæsthetic purposes, and this substance has now, after several vain attempts, been obtained. Its chemical composition is $(CH_3)_2$ CCH CH_3, and Mering calls it pental, owing to the circumstance that it contains *five* carbon atoms. It is very volatile and easily combustible. It can be administered exactly like chloroform, and the quantity required each time costs about sixpence. Anæthesia sets in after three or four minutes, rarely later. It is not deep, but suffices to render small operations, such as the extraction of teeth, painless. It is neither accompanied nor followed by any unpleasant effects.—*Lancet.*

Europhen.

This new antiseptic medicament designed to replace iodoform is obtained by the action of iodine upon isobutylorthocresol. Its pharmacology and bacteriology have been studied by Siebel, and its therapeutic action by Eichhoff.

Europhen is an amphorus yellow powder, exhaling a slight odor resembling that of saffron. It is insoluble in water and in glycerine, and more soluble than iodoform in alcohol, ether, chloroform, and the oils. Europhen adheres better than iodoform to the skin and to open wounds, and an equal quantity of it by weight will cover a surface five times greater.

This iodide of isobutylorthocresol is not toxic. Dogs were found to take two to three grammes of it with impunity, and the human organism will bear one gramme of it without unpleasant phenomena, save a slight feeling of weight in the stomach.

The urine of patients who had absorbed Europhen did not contain iodine.

Eichhoff employed it successfully in dressing both hard and soft chancres. He used it as a powder and also in the form of a one per cent or two per cent ointment. He furthermore employed it successfully in hypodermic injections, for syphilitic patients suffering from the secondary and tertiary symptoms of syphilis. These injections consisted of one gramme of europhen to one hundred grammes of olive oil, and of this, one-half to one cubic centimeter was injected daily in one dose. Eichhoff employed europhen in varicose ulcer and ulcerative lupus, as well as in eczema, psoriasis, and favus, in all of which it proved to be efficacious.

Ointments containing one per cent to two per cent europhen are as strong as need be used. Five per cent ointments caused a certain amount of irritation.—*La Semaine Medicale* July 29, 1891; *Repertoire de pharmacie*, Aug. 10, 1891.

In an article on Enlarged Prostate and its operative relief read before the New York Academy of Medicine, Dr. E. L. Keyes formulates the following:

1. Prostatectomy is justifiable and does what nothing else can.
2. The perineal operation is less severe, but also decidedly less reliable, than the suprapubic; it should rarely be preferred unless there are urethral complications. In very feeble old men it may still be the operation of election.
3. The operation is not justifiable with the present statistics if the patient can be comfortable in catheter life.
4. No physical condition of the parts or of the patient short of a practically moribund state contra-indicates an operation. By it in desperate cases life is often actually saved, although the operation is a grave one and its mortality high.
5. With the rongeur, better than with any other instrument, the bladder outlet can be lowered and polypoid or interstitial growths jutting into the prostatic sinus can be removed, and these points are more essential to a successful issue than the taking away of a large proportion of the prostate bulk. The instrument next in value is the curved scissors; but the trained finger is the most important of all.
6. Diuretin is perhaps of value when the kidneys are deranged. It certainly does no harm.
7. Chloroform alone should be used as an anæsthetic.—*New York Medical Journal.*

Abstracts.

Dermatology.

Case of Skin Grafting.—Horace M. Darling, M. D., LL. D. *The Medical and Surgical Reporter.*—In December a brakeman had his hand and forearm crushed, necessitating amputation of the hand and about three-fifths of the forearm. The fleshy part of the flap was greatly bruised, and healing did not take place as well as wished for. A portion of the flap sloughed and the muscles above the point of cutting suppurated beneath the skin, but an incision being made the pus was removed, antiseptic dressing applied and the healing slowly progressed except an extensive corner of the stump where the skin had sloughed away leaving none to cover the end of the bone. It having been decided to try skin grafting the following operation was performed:

The wound was thoroughly cleansed, the surface touched with point of the knife, and while slightly bleeding, pieces of skin from under the wing of a chicken were applied at three points on the raw flap. The wound after being dressed was left for twenty-four hours and when examined the grafts had rolled up, two had been swept off with the discharges, but one was still slightly adherent. The wound was dressed and left for two or three days and when again examined the last graft was removed. It having been decided to try the same kind again, an older chicken was used, two grafts about the size of ten cent pieces

cut from under her wing and applied to the open surface, allowing the upper one to touch the real skin, and placing the other one in the center of the raw surface; the wound then being dressed antiseptically and left until the following day. It was then found that the grafts were adherent, seemingly agglutinated underneath the wound, which was cleansed and dressed and left again for two days. At this time the center graft had produced a point—a nidus—appearing covered smooth. The one next to the skin also appeared to be fast and the discharges were considerably lessened. At the next examination the center graft had disappeared but the nidus remained. The one next the skin was partially gone, but in its place there was a glossing over, which progressed favorably, and the skin which was very thin at first gradually became thickened and extended out over the raw surface. The center graft had by this time entirely disappeared, but fresh pieces were taken from the hen, applied to the sore, and again points formed, from which coverings spread. The large raw surface which had been freely discharging was slowly covered with a new growth, the suppuration gradually lessening, and isolated scabs soon formed, which, when removed, left a *quasi* skin. These scabs were removed from time to time, the surface dressed with vaseline, until the entire stump was healed.

Report of Case of Lepra.—E. L. Moorhead, M. D. *The Chicago Medical Recorder.* An Austrian, 50 years of age, applied for admission to hospital for treatment for an affection of the spine, and giving the following history: Some six years before he had an attack of fever which lasted for three weeks, and also suffered from a sore hand, it being necessary to lance this two or three times. For the past two years spots have made their appearance on his body, from one-half to one and one-half inches in size and of a mahogany red color. Nine months previous to his admission a small tubercle appeared above the left orbit, and from this on similar tubercles formed until entire face became covered with them, and also his hands and wrists, the latter slightly swollen; patient complaining of burning sensation in them.

An examination showed the man to be fairly well nourished, chest and abdomen negative, urine negative. General infiltration and thickening of the skin of the entire body, more especially of the face, and on the face and dorsum of the hands and wrists the tubercles varied from a millet seed to a pea in size, being firm and not discolored. These tubercles were also found in the mucous membrane of the nares, buccal cavity and pharynx. The orange colored spots covered the entire body and there were areas in which anæsthesia was beginning to appear. There was hyperthesia and enlargement of the ulnar nerve; hands and feet slightly œdematous; a few tubercles in the prepuce of the glands penis and two large leproma in the femoral region of either side. The peculiar countenance called *leontiasis* was well marked in the case of the man and there can be but little doubt of its being lepra vera.

Laryngology.

Case of Foreign Body in the Trachea.—W. C. Glasgow, M. D. *Medical Record.* A colored child, eight years of age swallowed a toy baloon which was followed by severe choking, with cyanosis, aphonia, etc., these paroxysms recurring at intervals, during which she would froth at the mouth, resembling an epileptic; she had no dysphagia. Exploration not showing body to be in the larnyx or trachea, lower tracheotomy was performed, but a sound passed to the tracheal bifurcation revealed nothing.

A cannula was worn for five days, and after a severe spell of coughing a red mass was found at its inner opening which proved to be the rubber part of the balloon, but in attempting to remove it, the wooden mouth piece was torn off. This was finally coughed up above the glottis and removed by the mouth. Recovery followed rapidly and was complete.

Obstetrics.

Amputation of the Pregnant Uterus at Term, With Intra-peritoneal Treatment of Stump.—H. M. Milton, M. R. C. S. *The Lancet.* A primipara, aged 23, had been in labor about four days, and was completely collapsed, but conscious, her pulse being easily felt. The pelvis was osteomalacic, and the rami of the pubis so approximated that three fingers could only be introduced with difficulty. Three days before, the membranes had ruptured and the head was jammed on the pelvis. As abdominal section gave the only possible chance for delivery, it was decided to try this method.

Chloroform being administered, the abdominal walls were incised up to two inches above the umbilicus. The uterus was made to protrude, and turned to the right, bringing into view the huge vessels of the left broad ligament stretched on the distended uterus, a closed artery forcep easily passing under them, piercing the broad ligament and raising the vessels from the uterus. One handle of the artery forceps was then passed beneath them, and the two handles held ready to be clamped when required. The uterus was then turned to the left, and the vessels of the right broad ligament similarly treated. The placenta was found at the top of the uterus, and the uterine wall incised below its attachment. The opening in the uterus being enlarged the dead child was easily removed, the artery forceps holding the vessels of the broad ligament being clamped. The uterus was cut across, a little above the reflection of the peritoneum on to the bladder. No bleeding occurred except as the uterine arteries and veins on either side were cut across. Water was used to wash out the stump of the uterus, draining through the vagina. The vessels of the broad ligaments, already clamped, were separated and tied with silk, and the edges of the stump were sewn together with a continuous catgut suture, the peritoneum united over it with a continuous Lembert silk suture. The peritoneal cavity was cleansed, a drainage tube inserted, and the abdominal wound closed. The patient lived about twelve hours after operation.

Ophthalmology.

Monocular Diplopia.—J. H. Thompson, M. D. *The Journal of the Am. Med. Association.* A moderately robust lady, 35 years of age, was injured while sitting in a chair car, being thrown completely down the car into the opposite corner, and receiving a slight cut over the left fronto-temporal region.

There was no other wound on the head, and although being stunned for a short time, was able soon to walk around. The next day on arrival at her home, it was found that she had a fracture of the coccyx, and because of the tenderness of the spine and sacrum, was obliged to remain in bed for four months.

At the expiration of this time, she complained of diplopia, not being able to walk steadily or use her eyes at close work, unless one was bandaged. The eyes on examination were found slightly astigmatic. With each eye tested separately, and aided by correcting cylinder, vision was normal; she had pronounced homonymous diplopia; pupil reaction normal; no color blindness, and on pressure the scar of wound received on head was tender, but there was no other symptom whatever of cerebral irritation. The diagnosis was simply myoptic astigmatism 1-2 D.; paresis of the left external rectus and left inferior rectus.

At a subsequent examination monocular diplopia was observed, and after a most careful trial with prisms the following was noted. In a dardened room when looking at the lighted candle, she saw four distinct flames, and if a prism, base downward, was moved before one eye, the moment the apex entered the pupil area she saw six flames. The same phenomena was observed in other eye, each eye tested separately she saw double. It was impossible to measure the paretic deviation on account of the inability of the lady to define the relative positions of the flames, and the fatigue occasioned by the test.

This was evidently a case of hysteria, that of the paresis of the recti muscles was of the character named by the French hystero-traumatique, and the monocular diplopia was the immediate result of autosuggestion.

Two Cases of Retinitis Albuminurica and Pregnancy—Death.—Frank Van Fleet, M. D. *The New York Medical Journal.* In the fifth month of first pregnancy Mrs. H. began to have œdema of the feet but not much more than most woman have during such state. Shortness of breath and failure of sight followed and examination revealed retinitis albuminurica; mitral insufficiency and albumin in urine. Immediate induction of labor was advised, but this advice was not carried out and at the time of normal labor, patient was seized with convulsions, became unconscious and did not rally, dying in six hours after delivery.

Case 2. Was a French woman, 32 years old, and within a week of her second confinement. Had been quite well until about nine days before, when sight began to fail, and so severe was the pain felt in the hips that she was unable to sleep or to lie comfortably in bed. Her appetite continued good; no headache; no vomiting; no œdema; in fact no trouble of any kind except the ones mentioned which were gradually growing worse when she came under examination.

Opthalmoscope examination of fundus revealed nerves hazy and indistinct. Retina plastered over with white plaques of very large size with profuse and extensive hemorrhages. Free catharsis and infusion of digitalis with counter-irritation over kidneys advised and an analysis of urine made showed quantity of urine large, specific gravity 1-028 and loaded with albumen.

Two days later premature labor was induced, the patient being pallid and waxy-looking; general œdema but not marked; pitting on pressure over skin; emits a urinous odor. O. D. V.=15-200, O. S. V.=1-200. The urine passed at this time showed the following: Reaction alkaline, odor of decomposition, abundance of albumin present, specific gravity 1.008, color reddish and muddy. Microscopic examination showed red blood corpucles in large quantity, granular and hyaline casts with triple phosphates, oxalate of calcium and urate of ammonium crystals. The next day after labor, the woman was suddenly seized with convulsions and died in a very short time.

Orbital Cellulitis following Erysipelas.—John Dunn, M. D. *Virginia Medical Monthly.*—After the removal of several large polypi from the nose of a patient, seventy-four years old, erysipelas began in the right external auditory meatus, spreading rapidly across the face. Five days later the right eye commenced to inflame, and orbital cellulitis set in, accompanied by protrusion of the eyeball, and considerable œdema of the conjunctiva, this state continuing for several days, when both eyelids became œdematous; conjunctiva and subconjunctival tissues inflamed and œdematous; eyeball totally immovable; cornea dry, and so great was the swelling that destruction of the cornea was threatened, in fact already commenced. Vision was lost in about three days after inflammation attacked the eye. No examination of the fundus could be made, owing to the state of the cornea, and the erysipelas had extended across the nose to left side of face. At no time during this attack did the patient suffer with severe pain in the orbital region, nor was any great amount of unpleasantness occasioned by pressure on the eyeball. Warm bichloride of mercury 1-2000 was applied constantly to the face with internal treatment, the erysipelas subsiding in a few days, but repeated incisions on the conjunctiva which were made in the hopes of saving a further destruction of the cornea, and the ulceration made no progress afterward, the swollen conjunctiva had been freely bled. The patient never regained vision in his eye and there still remained excessive oxophthalmus, while beneath the conjunctiva in the orbital tissues was a great amount of inflammatory material. There existed but slight power to move the eyeball, but the patient seemed to suffer but little inconvenience or discomfort.

Otology.

Pebble in the Ear forty-two years.—Dr. De Beck. *The Cincinnati Lancet-Clinic.*—A man, aged fifty-four, had been hard of hearing nearly his entire life in the left ear, but had suffered no pain, or special inconvenience from it. While being tested for glasses the fact was mentioned, and upon an examination being made, a rounded, rather smooth, dark object was found blocking up the auditory canal well back where it is naturally somewhat narrower. It at first was supposed to be impacted cerumen and some carbolized glycerine dropped into the ear, and syringed with warm water the next day, did not dislodge the object, but the water having washed it cleaner, it was seen to be some foreign substance.

The fine wire loop of the Wilde polypus snare was carefully worked around it and easily drawn out, when it proved to be a pebble about the size of a bean.

Patient stated when twelve years of age he remembered having had some pebbles thrown at his ear, and at that time one was extracted by the resident physician from the canal where it had lodged. The deafness had always been attributed to injury received at that time.

Surgery.

FIBRO-SARCOMA OF THE NECK WITH TEMPORARY OPHTHALMOPLEGIA EXTERNA AND SYMPATHETIC PARALYSIS.—H. V. WURDEMANN, M. D. *The Journal of the Am. Med. Ass.*—A young boy, fourteen years of age, was brought for treatment on account of protrusion of the eyeball and double vision. About eight months before the cervical lymphatics of the left side began to enlarge, and the swelling increased rapidly until it was the size of an orange. There was no particular pain or illness until a few days before, when symptoms of headache and general malaise appeared. The patient had been seeing double for three days, at which time the eyes were observed to diverge.

Examination revealed a large nodulated tumor of the left cervical region which had pushed the trachea to one side. The left side of face was flushed and warmer than the right. Complete ptosis existed, the lid falling to lower edge of the pupil, which was contracted and did not respond to light or shade. The eyeball was directed downward and outward and away from the median line, making an external squint of about 35°. The conjunctival vessels were flushed. Opthalmoscopic examination showed the veins more tortuous and fuller than on the papilla of the other side. The tension was slightly lowered, being T.—1. The accommodation seemed partially affected, the near point being at 75 cm., while that of the other eye was 12 cm. V. R. E. 6-6; V. L. E. 6-12. Examination of the refraction showed him about 1 D. hyperopic in both eyes. There was dull continuous headache and the boy seemed stupid.

Bandages were placed over eye, and hot baths and rest advised, this plan causing the squint to lessen in four days to about 20°, the eyeball becoming less prominent and by making an effort the boy could raise the lid above the level of the pupil, which was still contracted, but could be partially enlarged by homatropin. The fundus and accommodation were the same, but temperature of the right side was some warmer than at first. The eyes became straight in one week, but vision remained double. A small portion of tumor of neck being removed for examination the sample showed scattered sarcomatous elements with fibrous tissue in preponderance. As it was not deemed advisable to operate on such a large growth involving important structures, the boy returned home. Some nine months afterward the growth had slightly increased in size, and was discharging in several places.

RARE MALFORMATION OF FACE, ACCOMPANIED BY OTHER ABNORMALITIES. W. H. C. STAVELEY, F. R. C. S. *The Lancet.*—An infant, ten hours old, came under observation for imperforate anus, having a deformed face. The nostrils extended upward almost to the inner canthi of the eyes, but the lips and palate were normal, the trouble evidently being caused by failure of the union of the fronto-nasal with the maxillary plates.

A catheter was passed, from which the urine escaped, and used as a guide to reach the gut through the perineum. This not proving successful, the left iliac colotomy was performed, when it was found that the sigmoid flexure could not be recognized with certainty, but a large distended coil of intestine lying in the iliac fossa was seized, sutured to the abdominal wall, and as the abdomen was greatly distended, immediately opened. Although the child took food well, and temperature continued normal, he died forty-eight hours after operation. At the autopsy performed after death the following was found:

Thoracic viscera normal. Abdomen: No peritonitis; the upper part of the sigmoid flexure, which was the coil seized at the time of operation, firmly united to the abdominal wall by plastic exudation. The great omentum was entirely absent. The large intestine was surrounded by peritoneum, and had a short mesentery throughout. The sigmoid flexure had a very long mesentery, and extended right across to the right iliac fossa. Throughout the large intestine there was no indication of the appendices epiploicæ or of the normal longitudinal muscular bands. The rectum terminated blindly one inch and a half above the normal position, the perineal incision having only just failed to reach it. The other viscera were normal.

TUMOR OF THE SUPRA-CLAVICULAR REGION.—JOHN A. WYETH, M. D. *The International Journal of Surgery.*—An unmarried lady, forty-five years of age, who had enjoyed excellent health until about two years previously, slipped during the winter, and in falling to the ground struck the right shoulder blade. As the pain was slight she did not think anything about the matter until some two months later, when she experienced a sudden uncomfortable sensation at the root of the neck, just above the clavicle, and at the outer edge of the mastoideus muscle of the right side. Swelling was soon noticed, accompanied with a feeling of throbbing and slight tingling along the nerves of the arm, which gradually increased.

Examination revealed a well-defined swelling in the supra-clavicular region, elevated about to the level of the collar bone, measuring about two inches in all diameters across its base. It was soft, elastic, compressible, pulsated with the radial pulse of the right side, which was weaker than the left, and slightly delayed. Pressure caused increase of pain, and the pulsation seemed to be most marked over the center of the tumor. The aneurismal sound, associated with the passage of blood into and through an aneurism could not be heard, but there was quite noticeably a marked increase in the pulsation of the innominate and right carotid arteries, and a whistling sound. This indicating that there was an aneurism of the third portion of the subclavian artery, treatment was begun by direct compression by means of a hollow rubber ball, and continued for four months, when nothing remained of the tumor except a little firm nodule, deep down in the neck and about the size of a cough lozenge. This condition did not continue, for in one month's time the swelling had gradually become as large as at first and an operation for the removal of tumor was advised which took place several months later.

An incision was made parallel with the clavicle, directly over the center of the tumor, and by careful dissection a cystic tumor, elliptical in shape and about two inches by one inch and one half in size, evidently

developed in a branch of the cervico-brachial plexus, was found lying upon, and almost enveloping the subclavian artery. It almost occluded the artery by pressure, being caught between the clavicle and the first rib, and could not be removed until the clavicle was cut in two and turned out of the way. A smaller tumor was discovered external to the cyst, extending slightly into the axillary region. The wound was closed aseptically, and the recovery uninterrupted.

A Successful Nephrectomy for Tuberculosis.—Clayton Parkhill, M. D. *The International Journal of Surgery.* A young man 23 years of age, came west for his health, evidently suffering from phthisis pulmonalis, but change of climate improved him greatly although he had several attacks of irritable bladder, some years before having had an attack of cystitis of a serious character. Stone had been suspected, but exploration failed to discover it. Two years after first coming under observation he was seized with another severe attack of cystitis which did not yield readily to treatment, so he was anæsthetized, the bladder explored and a small tumor discovered, situated in the trigone, and as large as half a filbert. There was no contraction of the bladder, or evidence of disease and he improved under treatment very rapidly for several months, when he was suddenly seized with a severe chill, high temperature, and apparently a renewal of the inflammation of the bladder. Patient complained of pain in left lumbar region, and the urine upon examination was found loaded with pus, indicating not only the bladder but the left kidney was involved in the diseased process. Remedies did not seem to give much relief and the temperature continued to run as high as 103°, the pain in the region of the kidneys being at times acute. The man lost flesh rapidly and an operation was decided to be the only means of saving his life.

Under chloroform, an incision about three inches in length was made parallel to the last rib and a slight distance beneath it, beginning at the anterior margin of the quadratus lumborum and extending forward and downward. Another incision followed the anterior margin of this muscle, connecting with the other incision and extending downward a distance of about four inches. Pus was withdrawn from the exposed kidney with the long needle of a hypodermic syringe and the organ was easily separated from the circumrenal fat, no adhesions of any consequence fastening it in its position. The renal vessels and the ureter were included in the same ligature, and when the kidney was cut away it was found to be excavated by numerous abscess cavities, containing considerable caseous material which was evidently tubercular. The ends of the ligatures were left dependent from the lower angle of the wound, which was irrigated with bichloride solution, a drainage tube inserted, the whole dusted with iodoform and closed. There was considerable hemorrhage, which was checked by pressure, the wound dressed with bichloride gauze, and a thick layer of antiseptic cotton, retained in place by a bandage. Stimulants were administered hypodermically and patient rallied from the effects of the operation, but the second day, temperature rose to 103°, continuing high until the evening of the third day, when it fell to normal and remained so.

On the second day after operation the wound was dressed and found to be in a good condition. It was again dressed on sixth day, and thereafter every four days, and as there existed quite a little suppuration at the bottom of the cavity, antiseptics were used freely, the ligatures which had been left hanging from the wound, evidently acting as irritants. Food was administered in liquid form and iron and quinine were given after the first week, followed in two weeks by cod-liver oil. Morphine was administered hypodermically to control restlessness and sleeplessness. Pus disappeared from the urine immediately after operation and in six weeks from that time he was able to travel east. The urine was repeatedly examined for pus but always with negative results, and there appearing no evidence of inflammation, the pain he suffered seeming to be of neuralgic character, which was controlled by small doses of opiates.

Three months after operation it was found that there still remained a small sinus at the site of the ligature, and another operation was made in the hopes of finally closing this. It was about an inch and a half in depth, with a tuberculous degeneration at the bottom. The opening was packed with iodoform gauze; a more healthy process set up, and although the sinus did not entirely disappear the patient regained his usual weight and a fair amount of strength.

Resection of the Rectum for Annular Cancer.—Dr. Houzel. *The International Journal of Surgery.* The patient having suffered for a long time an examination was made, revealing a circular structure covered with vegetation about four centimeters above the spincter ani and extending upward for about three centimeters. Cancer being diagnosed, extirpation was decided upon, but before operation naphthol was administered for five days for the purpose of disinfecting the alimentary tract.

An incision was then made and the rectum divided with a bistoury as far as the coccyx which was resected, and the healthy portion separated from the surrounding tissues with finger nail and scissors but difficulty was met with in dissection of the cancerous parts. The prostate and vesiculæ were found to be enclosed by the neoplasm. The vas deferens was encircled by two elastic ligatures and divided between. The vesico-rectal pouch of peritoneum was widely opened, the opening being closed with an aseptic sponge. After the tumor had been drawn down and excised, the vesico-rectal fold of peritoneum was united to the bowel by catgut sutures, the upper margin of the divided rectum sewed to the lower one, and the incision in the sphincter closed. Patient made a good recovery and three months later appeared to be entirely cured.

Medicine.

Larvæ of House Fly Infesting an Infant.—W. L. Goddard, M. D. *Medical World.*—On August 1st, last, Mr. N. R. sent me a "worm" for identification, which had passed that day in the alvine discharge of his baby, aged three months. On August 4th he brought me another one of the same species. I pronounced them as the larvæ of some species of fly, and to prove to Mr. R's doubting mind, I put both "worms" into a small vial for further development. One of the "worms" died, the other, the next day after its arrival, changed into the pupa state, and five days afterward, hatched out a fully developed housefly —*musca domestica.* The baby had passed eight of the

larvæ from its bowels up to that time. It had been fed partially artificially, which accounts for the egg or larvæ being conveyed into its intestinal canal. Mr. R. also told me, and I will use his language as nearly as possible. "After the naval string came away, we found that the maggots had got into the baby's naval; they were very large (measuring from the end of his finger about ¾ inch) and two layers deep lengthways and as tight as they could be packed."

HEADACHE DURING CHILDHOOD.—Simon (*Rev. Mens. des Mal. de l'Enf.*, May, 1891,) says that seven groups of headache may be classified:

1. Headache from rapid growth. It is usually frontal, is increased by exercise, and co-exists with pain in the joints, periostoses, and hypertrophy of the heart. Treatment: muscular repose, tonics, liberal diet, phosphate of lime, malt beer.

2. Headache from intellectual activity. If occurs in intelligent and excitable children, who study too much, or in backward children, who acquire their lessons with difficulty. Treatment: for the first class of cases, cessation of intellectual work, physical exercise, but not so severe as to produce fatigue, lukewarm baths. In the second class of cases the work may be continued in moderation, plenty of exercise being enjoined.

3. Headache from digestive troubles. It occurs in children who eat too much or too fast, and occurs in one to three hours after eating. Treatment: properly regulated hygiene and diet; by bitter tonics before eating, warm drinks after eating. Constipation should be overcome.

4. Headache of nervous origin. It occurs in children who are excited by their manner of living. It is premonitory of future neuropathies, epilepsy and hysteria. Treatment: bath, walking, massage, valerian, aconite, and antipyrin for the hysterical; belladonna and bromides for the epileptics. They should avoid taking cold.

5. Headache in children of gouty or rheumatic diathesis. It is sometimes accompanied by intense congestive phenomena, which simulate meningitis. There are manifestations of hereditary antecedents; there are neuralgias, arthralgias, myalgias; the urine contains phosphates, oxalates, and urates. Treatment: moderate diet, exercise in the open air, vapor baths with friction, laxatives, alkalines, salicylate of soda in doses of from twenty-five to thirty centigrammes, and tincture of colchicum in ten to fifteen-drop doses daily.

6. Headache from anæmia and poisoning. In the first case it is due to bad air and hygiene, in the second to malaria, carbonic oxide, to excessive medication, to uræmia. Treatment: it should vary with the cause.

7. Headache from injury to the sensory organs. There may be chronic conjunctivitis, or keratitis, or iritis, which should be treated locally, and also by the internal use of sulphate of quinine in large doses. Troubles of refraction, hypermetropia, and astigmatism must be treated with suitable glasses. There may be mucous polypi in the nose, or hypertrophies, which call for local treatment. There may be adenoid vegetations in the ears, otitis, or foreign bodies in the auditory canal, which call for suitable treatment.—A. F. C. in *Archives of Pædiatrics.*

CYSTS OF THE BRAIN IN CHILDREN.—Broca (*Rev. Mens. des Mal de l'Enf.*, May 18, 1861) has trephined successfully in three cases in which there were cysts of the brain, two of them being in children. In one the condition was hydrocephalus, and palliative result was obtained. In another trephining was done over the center for the left upper limb, a cerebral cyst was evacuated, and a Jacksonian epilepsy was greatly relieved. There are still nocturnal crises of slight intensity; there are no more severe convulsions, his left arm is getting stronger, his sight is improving, and his disposition is much less irascible.

Reynier has reported a case in which a cystic glioma was removed from the brain of a child ten and a half years old. The child began to have cerebral disturbance when three years old. When seven years of age he had occasional attacks of *grand mal*, and suffered with headache. When ten years of age he was treated with bromides without benefit. Finally an operation was determined upon and performed, a cyst being found embedded in the cortex, on the anterior border of the ascending frontal convolution, between the second and third frontal. A portion of the sac was left, the wound was sutured and drained. The attacks were renewed after sixteen days, and subsequently a second operation was performed. The cyst had re-formed, and it was entirely removed with the curette. The attacks again recurred, but subsequently subsided, and at last accounts there had been none for two months.

Doyen has also reported an operation upon a boy sixteen years of age, an intracerebral cyst being found containing a third of a liter of albuminous fluid. At the end of two months the cure seemed complete.—*Archives of Pediatrics*, September, 1891.

BILATERAL FACIAL PARALYSIS, WITH REPORT OF A CASE.—M. I. BASSETTE, M. D. *The Medical and Surgical Reporter.*—A married woman, thirty-three years of age, having had three children, had four years previously suffered with a severe attack of sciatica, lasting for six weeks. Having to follow washing for a living, and being much exposed to wet and cold she was attacked with pains and soreness, which at first were general, but finally settled in the muscles of the chest, lasting for about two weeks, then appearing in the right side of the head, and in the ear and face. Two days before there was a constant twitching of the right corner of the mouth and also right eyelid, but this ceased, and as soon as the pain began in the head, there seemed to be sensitive lumps or "kernels" behind her ears. The right side of the face was paralyzed, in another week the eye could not be closed and the mouth was drawn to one side.

Two weeks later pains began to make their appearance in an intense form on the left side, and the woman had the greatest difficulty in masticating food, owing to inability to close the mouth. The hearing was not affected until after pain began on left side. The tongue could be protruded and moved in any direction, but there was complete loss of taste on the anterior surface of the tongue on both sides, accompanied by great dryness of the mouth. Double lagophthalmus was marked; the forehead could not be wrinkled, the nostrils dilated, lips raised, or the angles of the mouth drawn upward or downward. In eating the hands were placed around and against her lower jaw and cheeks to prevent the food from falling out of the mouth, and swallowing was quite difficult. The sense of smell was impaired on both sides, and patient complained of noise in the left ear.

Small blisters were applied in front of and below the ears, and small doses of mercury given for several days, followed by salicylate of sodium and gaultheria and later on 10 to 20 grains of iodide of potassium. The galvanic current was also applied three times a week and the improvement was quite marked, although more so on right side than left. Her condition continued to steadily grow better until she could nearly close the right eye; right angle of mouth could be well drawn upward, and on the right side the lips could be elevated and depressed. There was no difficulty in swallowing and but little in masticating the food. Reactions of degeneration were marked on both sides.

Therapeutics.

STRYCHNINE IN DIPSOMANIA.—Dr. Jaroshensky has ascertained from accurate experiments on dogs that strychnine undoubtedly neutralizes the toxic and narcotic effects of alcohol; that it renders it possible, therefore, to administer large quantities of alcohol for a long period without producing the usual organic changes. He argues from these facts that a cautious administration of strychnine is of advantage in all forms of alcoholism, both as a curative and prophylactic agent. It may be administered internally or by hypodermatic injection. Preferred by Dr. Albright, of Brighton.

SALICYLATE OF SODA SUPERIOR TO QUININE IN CONTROLLING FEVER OF TUBERCULOSIS.—PROF. JAQCOUD, of Paris (*Jour. of Am. Med. Association*), considers the salicylate of soda as the best antipyretic in febrile tuberculosis, given in a maximum dose of two grammes in twenty-four hours. A daily dose of one gramme may be continued for a long time, taking the precaution to give the patient a large quantity of water after each dose. In the light of present facts he considers it inadmissible to give the sulphate of quinine in these cases.

COCAINE IN PERTUSSIS.—Dr. A. Bianchi administers the hydrochlorate internally in doses of thirty to eighty centigrammes per day, giving a dose every two or three hours; and in bad cases even as much as one gramme. No evil effects were observed; on the contrary, from the very first, there was an improvement. The attacks became less frequent from thirty or forty in the twenty-four hours to ten or twelve, or even less. The vomiting ceased, and consequently nutrition improved; along with the appetite the gastro-enteric functions were performed with regularity. The cure in some cases was complete in a week, in others from fifteen to twenty days. The cough did not cease, but the spasmodic attacks became less and less frequent and severe. Sudden cessation of the medicine was followed by a return of the frequency of the attacks, but gradual withdrawal was satisfactory. Ill effects were seen only twice, and passed away suddenly on suspending the administration of the medicine and giving ten drops of laudanum. In the cough of bronchitis or phthisis cocaine appears to be useless or uncertain.—*Lo Sperimentale.*

BROMIDE OF LITHIUM FOR RHEUMATISM.—Bromide of lithium is said by Prof. R. Barthalow to be about the best remedy for muscular rheumatism.

ATROPINE IN THE NIGHT SWEATS OF PHTHISIS.—This troubling complication may be most effectually prevented and the sweats completely stopped by giving a granule of atropine sulphate 1-60 gr. at bed time. The remedy not only stops the excessive perspiration but calms the system, aids sleep, and lessens irritative coughing.

BROMIDE OF GOLD AS A MEDICINE.—Dr. Goubert, in a memoir presented to the Paris Academy of Medicine, advocates the employment of bromide of gold in the treatment of epilepsy and of different forms of migraine. He thinks that the salt is better tolerated than the other bromides. The medium dose for an adult is eight milligrams to begin with—gradually increasing to twelve milligrams—in a weak solution; for children, from three to six milligrams. Too large a quantity gives rise to headache of no great severity, and unaccompanied by sleepiness; this soon goes off on diminishing the dose. The remedy, according to M. Goubert, has a long-lasting action, epileptics, after taking it, sometimes going several years without a return of their complaint.

HYDROBROMATE OF HYOSCINE.—Prof. Da Costa recommends hydrobromate of hyoscine 1-100 grain as being of great value for the spasms of spinal meningitis.

COCAINE IN HYDROPHOBIA.—Dr. S. Fubini, of Palermo, has recently reported a case of hydrophobia in which local applications of cocaine gave marked relief in the characteristic spasms of the throat. The man had been bitten on the hand by a mad dog six months before. Three of his companions, who were bitten at the same time, had their wounds promptly cauterized, but the patient thought his too trifling to require attention. He was the only one in whom hydrophobia supervened. The spasms of the larnyx and pharynx were extremely severe and painful, and the patient, though suffering burning thirst, could not bear the sight of liquids. Dr. Fubini brushed the pharynx with a one-in-twenty solution of hydroclorate of cocaine, with the result that the spasm almost immediately ceased, and the man was able to drink without the least difficulty. There can be no doubt that the case was really one of hydrophobia; all the classical symptoms of the disease were present, and subdural inoculation of the patient's medulla in rabbits produced well-marked rabbies in those animals. The case shows the value of immediate cauterization of bites as well as the utility of cocaine in relieving symptoms.—*British Medical Journal*, September 29th.

MORPHINE AND ATROPINE.—Bartholow says that in small doses atropine increases the hypnotic power of morphine, causing a less disturbed and more normal sleep than morphine alone; the pain-relieving power is increased by atropine, while the after headache, vertigo, and depression of the heart's action, caused by morphine, are to a large extent prevented by its combination with atropine.

ATROPINE FOR PREVENTION OF SURGICAL SHOCK—Dr. L. A. Stimson, of New York, has for five or six years employed hypodermic injections of atropine 1-75 to 1-100 of a grain previous to giving ether, for the purpose of preventing surgical shock. He is cer-

tain, from his experience, that there is practically no shock following surgical operations after the use of atropine hypodermically.

THE BINIODIDE OF MERCURY AS AN EMMENAGOGUE.—I find the red iodide of mercury is a certain and safe emmenagogue. My attention was directed to its virtues quite accidentally some three or four years ago, since which time I have used it successfully in a large number of cases. I prescribed it in the form of a mixture as follows; but I should think it would act quite as effectually in pills of a quarter of a grain twice a day, or an eighth four times a day.

PILOCARPINE IN INFANTILE CONVULSIONS.—A correspondent of the *British Medical Journal* writes: "For an infant a few months old I begin with a hundredth of a grain of nitrate of pilocarpine three times a day, and gradually increase to a twelfth of a grain, which dose I have frequently given to a child one year old. I never inject it subcutaneously, and do not think the hypodermic method a good one in infancy. The rectum ought to be used more frequently in infantile therapeutics and diagnosis."

SALICYLATE OF SODA IN PRURITUS.—After having tried arsenic, bromide of potassium, atropine; sulphur baths, alkalies, emmollients, etc., without any results in a case of pruritus, M. Icard caused the symptoms which had continued for eight or nine months, to disappear upon the day after the use of the salicylate of soda, three grammes a day. There is still no return of the trouble.—*La Gazette Médicale.*

Book Reviews.

DISEASES AND REFRACTION OF THE EYE. By N. C. MacNamara, F. R. C. S., Surgeon to the Royal Westminster Ophthalmic Hospital; Surgeon and Lecturer on Surgery, Westminster Hospital; Surgeon-Major H. M., Indian Medical Service; and Gustavus Hartridge, F. R. C. S., Surgeon to Royal Westminster Ophthalmic Hospital; Ophthalmic Surgeon to St. Bartholomew's Hospital, Chatham; Consulting Ophthalmic Surgeon to St. George's Hanover Square, Dispensary. Published by P. Blakiston, Son & Co., Philadelphia.

This volume is the fifth edition of diseases of the eye, and has not only been extensively revised, but in addition there has been incorporated Mr. Hartridge's work on errors of refraction. The two authors have endeavored to describe the practice carried on in a large ophthalmic hospital rather than to discuss the views of various authorities on the subject, and to the average mind this review of facts from the man of experience cannot fail to impress the student and practitioner alike as to the value of such a work. The student may derive valuable information as to diagnosis, pathology and treatment of diseases of the eye, from this work, as may also the practitioner when in doubt as to the nature of ophthalmic cases under their care. The book is well illustrated with 156 cuts.

SCIENTIFIC MEDICINE IN ITS RELATION TO HOMŒOPATHY. By Prof. Theodore Bakody, M. D., of the Buda-Pesth University. 50 cents net. Translated from the German, by Rudolph F. Bauer, M. M., Philadelphia, Boericke & Tafel, 1891.

This little work is a reprint of an essay written by Prof. Theodor Bakody, of Buda-Pesth, in response to an invitation, asking him to express his views from a homœopathic standpoint, concerning the Koch method of treatment for tuberculosis. It has been translated from the German by Rudolph F. Bauer, M. D., and in the short space of a little over fifty pages clearly describes the working of minute doses. The translator asks that every physician, even if not in sympathy with the author's ideas upon the subject will give them serious consideration.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology and Otology. by Professors and Lecturers in the leading Medical Colleges of the United States, Great Britain and Canada; Edited by John M. Keating M. D., J. P. Crozer Griffith, M. D., J. Mitchell Bruce, M. D, F. R. C. P. and David W. Finley, M D., F. R. C. P.; July, 1891. 8vo. 356 pages. J B. Lippincott Co., Philadelphia.

The first number of the clinics gave much promise of valuable literature to the profession, and the publication of the second equals, if not excels the first. There are thirty-nine lectures, embracing almost every subject and among the most important may be mentioned:

Ovarian and tubal disease causing uterine hæmorrhage and pain; laparotomy; cure; by Thad. A Reamy, M. D.

General management of obstetrical cases in the Cincinnati Hospital; by C. D. Palmer, M. D.

Etiology and treatment of endometritis; by W. Gill Wylie, M. D.

Diagnosis and treatment of Uterine Myomata; by E. E. Montgomery, M. D.

The treatment of displacements and of flexions of the uterus; by E. H. Grandin, M. D.

Myoma complicating pregnancy; laceration of the cervix and retroversion; chronic endometritis and salpingitis; by P. F. Munde, M. D.

Removal of tubes and ovaries; acquired anteflexion of the uterus; ventral fixation of the uterus; by A. J. C.Skene, M. D.

Effects of double ovariotomy and oophorectomy on the secondary sexual characters of women; by J. Bland Sutton, F. R. C. S.

The cases of ulcerative endocarditis, by William Pepper, M. D. Chronic diffuse nephritis, by James Tyson, M. D. Tubercular disease of the skull; movable body in knee joint, by Roswell Park, M. D. Habit in reference to sleep and sleeplessness, by W. MacFarlane, M. D. Antiseptic ophthalmic surgery, by Edward Jackson, M. D. Acute inflammation of the middle ear; Catarrhal and purulent; by Charles H. Burnett, A. M., M. D.

The contributors are all men of prominence and their original communications are of great value as an addition to the library of every physician. The illustrations are of a high degree of merit and are not sparingly used when necessary. In addition to these lectures the editors give a Memoir with excellent portrait of Joseph Leidy, M. D., who died on April 30th, 1891, after a brief illness. He was one of the most eminent anatomists and scientists in America.

ARTIFICIAL ANÆSTHESIA AND ANÆSTHETICS. By De Forest Willard, M. D., and Dr. Lewis H. Adler, Jr. Cloth; square 16mo.; pp. 144. Price 50 cents. Published by George S. Davis, Detroit.

This little manual on artificial anæsthesia and anæsthetics although necessarily brief is complete, practical and convenient. The most of the book is devoted

to consideration of ether, chloroform and nitrous oxide, the uses, abuses and dangers of each being carefully weighed and a mass of testimony introduced both clinical and experimental, by the investigators.

The lesser anæsthetics are also described and discussed in proportion to their merit. An entire chapter is devoted to the local anæsthetic, cocaine—first a description of the alkaloid being given, then the physiological action, local action, and the methods of administration. In this chapter the authors state "For ophthalmological work, the surgeon finds in cocaine the anæsthetic *par excellence*. In no other department of surgery do we find its use so widespread and its application so entirely satisfactory. While this is true, it must be remembered that to obtain the best results it is more essential here than elsewhere to employ a perfectly pure drug. All of the operations upon the eyeball may be performed under cocaine anæsthetic, except iridectomy for acute glaucoma and enucleation."

This number of the *Physician's Leisure Library* fills not only a want, but supplys an actual need for all of value, and practicability are embraced in its pages.

Items of Interest.

A farmer living near Erie, Pa., recently died very suddenly of heart disease. His body was exhumed three days after he was buried, when it was found that he had been placed in his grave before life was extinct. The signs of his having returned to life were terrible, the face being torn, fingers bitten off and his clothing and the linings of the coffin in strips from his struggles.

A mother in Atlanta, Ga., jumped from the roof of a porch twenty feet high, to rescue her little baby who had fallen out of the window. Strange to state the child was only slightly bruised by its fall, but the mother's hip was dislocated.

Dr. Williamson, of Ottumwa, Iowa, recently lost the use of one of his eyes from iritis following *la grippe*. It is hoped that operative procedure may restore him useful vision.

The medical department of the Sioux City Normal University has been abandoned.

Dr. Keeley will not give his remedy for the cure of alcoholism to the public, claiming it is his by right of discovery.

A young woman in New York City has become insane from the administration of gas for the extraction of teeth.

A patient recently died in one of the Iowa insane asylums, exhibiting hydrophobic symptoms, resulting from bite of dog suffering from the effects of turpentine.

Dr. R. L. Jay, of Mayland, Iowa, fell dead while dressing a wound of patient.

A physician of Nevada, Mo., reports a case in which a green maple worm was vomited up by a child.

Recently a boy thirteen years old died in Brooklyn, N. Y., from the effects of chloroform administered as an anæsthetic during the removal of a growth from his toe.

The ninth annual meeting of the Michigan State Pharmaceutical Association was held at Ann Arbor, Tuesday, October 20.

The third annual meeting of the Tri-State Medical Association convened in Chattanooga, Tenn., Tuesday, October 27, 1891, and continued in session three days. It was one of the largest medical meetings ever held in the South.

A prize of 1,200 francs, or $240, has been offered by the Société Medicale des Hopetaux for the best essay upon Artificial Feeding of Infants. The competitive papers must be sent to Secretary of Société not later than July 1, 1892.

The late Dr. Fordyce Barker left his library relating to obstetrics, gynæcology and diseases of children to the New York Academy of Medicine.

The lunatics and diseased persons sent back to Europe from the State of New York during the last seven years numbered in all 1,374.

A French scientist declared that at least 30 per cent of the common contagious diseases are carried from house to house by domestic animals.

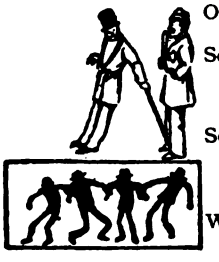
Wit and Humor.

ODE TO THE BICHLORIDE OF GOLD CURE.

BY X. EUNT DIPSO.

An Agony in Three Fits and a Spasm.

FIT I.



OW Patrick Maloney from County Kildare
Was strongly addicted to rum;
So much so that folks had been heard to declare
That Pat was a bibulous bum.

Sometimes he'd brace up for two months at a stretch,
And his friends on his conduct would brag,
When all of a sudden this ill-fated wretch
Would show up with a beautiful jag.

They'd curse him, they'd coax him, they'd send him to jail,
His name he'd attach to the pledge;
But all these means to reform him would fail;
He'd go off and get tight as a wedge.

Some said that his weakness was due to disease,
Some said it was original sin;

And while they were tackling such problems as these
Pat was flooding his system with gin.

At length, when his friends had forsaken him quite,
And the last of his comrades grew cold,
Somebody suggested a journey to Dwight
To try the bichloride of gold.

Poor Bridget, his faithful, long-suffering wife,
Besought him with many a sob
To give Dr. Keeley the chance of his life
To do a magnificent job.

She fished from her stocking a hundred or so
That she'd garnered in happier days,
And told him what joy it would give her to know
That her darling had mended his ways.

FIT II.

Six weeks passed away and her Patrick returned;
She flew to his arms like a bride;
But a look of disgust on his face she discerned,
And his arms remained limp at his side.

Sure never before had Pat acted like this,
For, even when full to his ears,

He had always delighted in conjugal bliss,
And his ardor had grown with his years.

But his breath was deodorized, praised be the saints!
And his nose wore a temperance hue;
So Bridget bore up without making complaints,
As she thought 'twas her duty to do.

But through the long hours of that terrible night,
As Pat slept with his face to the wall,
Bitter thoughts of a rival—some charmer at Dwight—
Kept Bridget from sleeping at all.

ACT III.

Six months rolled around and Maloney's reform
Was accomplished beyond any doubt;
But his love that once burned for his Bridget so warm,
Like the fire of his youth had gone out.

At last in a wild burst of grief she implored
That he'd tell her what made him so cold.
"Be jabbers! me darlin,' I'm thinkin,'" he roared,
"It's that dev'lish bichloride of gold."

For women and wine are so closely allied
As the source of a man's pleasures and pains
No antidote Nature can ever provide
Will bar one while the other remain

Then Bridget Maloney rose up in her might,
And she cursed that bichloride of gold;
She cursed Dr. Keely, his drug store at Dwight,
And all who his "treatment" uphold.

SPASM.

That night, had you entered the door of their flat,
This fact you'd have to record:

That Bridget was safe in the arms of her Pat,
And Patrick as drunk as a lord.

In writing out a prescription the other day a well-known Pittsburg doctor wrote *aqua fontis*—that is spring water—in place of the more customary but equivalent term of *aqua pura*. The patient to whom this prescription was given took it to a druggist, who had just gone into the business of putting up pills and potions. The new druggist ran through the prescription and handed it back, saying: "You take that prescription back tc Dr. ——, and tell him that he's put enough *aqua fortis* into that prescription to kill ten men."

Fenderson—Ha! what's this? "The posterior third of the inferior convolution of the left frontal lobe is diseased in aphasia." Now, this is really startling. I'll tell that to Mr. Stickle; he's always interested in such matters. Oh, here he is now! I say, Stickle, were you aware that the posterior convolution of the aphasia is diseased in the left third of the inferior lobe?

And then Stickle knew just as much about it as Fenderson did; but it was an interesting matter, and both gentlemen stuck their hands in their pockets and felt that it would be a terrible setback to the earth should they be taken out of it.—*Boston Transcript.*

A GROWING CHILD.—Conductor—"Madam, did I understand you to say this girl is not yet twelve years old?"

Mother.—"She will be twelve next spring."

"And you want to go all the way to New York in this car?"

"Yes."

"Then you should not go on this train."

"Why not?"

"Because this is a slow train, and if that girl keeps on growing as she has been, by the time we get to New York she will be so large that she will not be able to get through the car door. The company can't afford to take the car to pieces on a half-fare ticket."
—*Texas Siftings.*

"Well, what you wearin' glasses fur, Mr. Johnsing?" Mr. Johnsing: "Fur my eyes, nigger; din you spose I wuz wearin' 'em fur de colic?"

Turpentine, treacle, and castor oil,
Add some creosote, gently boil;
Sift iodoform into the stuff;
Add some glycerine (quantum suff.)
Set it aside for some time to cool--
That's the medicine for boys at school.
--*Medical Press.*

Mrs. Stetson, wife of the operator at a little station in New Mexico, was sick and steadily growing worse. At last she said to her husband:

"Stet, that Dr. ——— ain't helpin' me one sole bit. I'm getting worse every day."

"I know it, Alice, I know it. Don't appear like he's any good on earth."

"I tell you, Stet, I'm going to die. I feel it in my bones."

"Wal, Alice," (with solemn earnestness and comfort) "if you do I'll be —— if I ever pay the doctor."

"ODE TO BACILLUS."

Oh, powerful Bacillus,
With wonder how you fill us,
Every day!
While medical detectives,
With powerful objectives,
Watch you play;

In epidemic glanders,
In certain forms of "janders,"
You delight.
E'en to the fifteenth culture,
Voracious as a vulture,
You can bite.

Koch and Spina growing splenic,
O'er your powerful septicemic,
Rant and roar.
Schmidt says, when pus grows rotten,
Only then you are begotten,
Not before.

In lung tuberculosis,
In skin necrobioisis,
How you squirm.
While gonorrhœal burning
Is caused by sporules turning,
Some affirm.

'Tis said a crypto-coccus
Will very often choke us,
If we fail
To drop the acid phenic—
Which is antisepticemic—
On its tail.

Friar says in fever, yellow,
He finds a little fellow
Breeding pest.
Gregg swears, do what he will he
Sees nothing but fibrilli
By his test.

In atmosphere nephritic,
In poison diphtheritic,
How you revel!
In earth and air and ocean,
You keep disease in motion
Like a devil.

But Bacillus, O, Bacillus,
You try in vain to kill us,
Yet we thrive.
And though you try to blind us,
Yet next year I hope you'll find us
Quite alive.
—*Journal of Reconstructives.*

Dr. R.——, the well known Cincinnati gynæcologist, had a lady on his examination table recently, who, on the introduction of the speculum, uttered a low cry—"Ah! ah! ah!"

Surprised, the doctor, thinking he had hurt his patient, inserted a smaller instrument, when the lady again uttered "Ah! ah! ah!"

More than ever surprised, the physician demanded the cause of her complaint.

She explained by stating that she had lately been under the care of a laryngologist who, when he introduced an instrument, had told her to say "ah!" so that he might see the parts better.

Dr. R.——, at latest advices, was recovering from his surprise.

Professor: "Where do we find squamous epithelium?" Student: "The favorite situation is the squamous portion of the temporal bone." Professor: "Ah, indeed! then what does the professor of dermatology mean when he speaks of squamous skin disease?" Student: "Oh! yes, sir. I forgot. We find that variety of epithelium most common in certain affections of the skin." Professor: "Shades of Dalton!"

THE MEDICAL STUDENT.

He leaves his father's acres, the store, or shop or baker's,
Determined to assuage his fellows' ills;
He will have a horse and buggy, and the day'll indeed be muggy
When he doesn't get a few ten dollar bills.

So you'll find him in the city; and it really seems a pity
That his boarding house is not a lovelier place;
But tho' living in an attic, 'tis with feelings quite ecstatic
He prepares to be a blessing to his race.

He's not much filthy lucre, but with pipes and beer and euchre,
Great comfort in his daily life he takes;
With all absence of conjecture, he discusses every lecture,
And shows how each professor makes mistakes.

He takes the lady boarder, whene're he can afford a
Ticket, to the theater or ball;
And he wins her young affections with his stories of dissections
And other things adapted to appall.

But when terms approach their ending, to quiz he's strict attending,
And indifference to industry is changed;
In his most ingenuous manner, he explains the wondrous plan upon which human beings are arranged.

When he gets the wished diploma, it would truly take a tome or
Two of paper to describe
How supremely keen his bliss is, how the world seems full of kisses,
And how many mugs of beer he doth imbibe.
M. S.—*The Doctor.*

Palmer—It's mighty funny, but there are no less than six people with whom I have been talking within a week who are now dead.

Curtleigh—I haven't the least doubt of it. I'm sorry I can't stop to listen to you to-day, but the fact is I'm not prepared.

Western Medical Reporter.
A Monthly Epitome of Medical Progress.

VOL. XVI. DECEMBER, 1891. No. 12.

ORIGINAL ARTICLES.

The Remote Results of Removal of the Tubes and Ovaries.*

BY WHARTON SINKLER, M. D.

Physician to the Infirmary for Nervous Diseases, Philadelphia, and Neurologist to the Philadelphia Hospital.

The importance of inquiring into the remote effects of removal of the ovaries and tubes is apparent. Until within a short time but little has been written on this subject, but the interest of medical men is becoming excited, and we are beginning to find frequent communications regarding it in the medical journals and elsewhere. Of late years uterine and ovarian operations are becoming more and more common. Operators are multiplying, and, as a result, operations increase in a geometrical proportion. To use the words of a writer:[2]

"The technique of oöphorectomy has been so thoroughly systematized, that in itself it is now one of the easier surgical operations. A first successful abdominal section seems to have the same effect upon an operator as the taste of blood upon the Indian tiger. A thirst insatiable is aroused, and life is spent in looking for new victims. Cases running into double and triple figures are cited, where all the worst features of the most stubborn nature have disappeared, as though the surgeon's knife were gifted with the power of an enchanter's wand."

Operators, as a rule, know but little of the condition of their patients after they have recovered from the immediate effects of the operation. They pass out of their hands and return to the care of the family physician, or, if not relieved of the trouble for which they sought an operation, go to another gynæcologist, or to the neurologist.

A recent writer, himself a laparotomist, says:

"Because of the fact that all of these patients are not under my care at present, it is not possible to give the exact percentage of those cured, improved, etc."

In considering the results of removal of the uterine appendages, two questions are to be considered. First, if the removal of the ovaries was resorted to for disease of these organs; and, secondly, if the operation was done for the relief of disorders of the nervous system which were aggravated at the menstrual period, and which it was hoped could be cured by causing cessation of menstruation.

The referee has gone fully into the consideration of the result from a surgical standpoint. I will only say that I have known many most satisfactory results to follow the removal of the ovaries and tubes for pyosalpingitis, ovaritis and other inflammatory conditions of these organs, and the general testimony is, that it is in these conditions that the operation is followed by the best permanent results.

Through the kindness of many professional friends a large amount of material has been placed at my disposal, and from this, my own experience, and from the cases reported in the journals, I have drawn the conclusions that I now present.

The physiological effects appear to be the same, whether the organs removed have been diseased or healthy. The age at which the operation was done, has some bearing on the symptoms which follow. Young subjects present more marked phenomena than older persons. When the uterine appendages have been removed before puberty, or near the beginning of the menstrual function, the development of sexual characteristics is arrested. If, however, these organs are removed after full womanhood, no change takes place in the peculiar feminine characteristics. These are universally admitted facts.

The phenomena which follow the removal of the ovaries, as Tait expresses it,[4] "match in all other respects the process of the climacteric change." This is about the gist of the matter. We find in almost all cases, as soon as the patient has recovered surgically, that the various symptoms belonging to the change of life are present. The most prominent of these are the flushings and sweatings so commonly seen at the menopause. These occur most frequently during the first few months after the operation, sometimes annoying the patient intensely.

Dr. Howard A. Kelly, of Baltimore, informs me that in his experience the flushes and sweats reach a climax in from three to six months, gradually disappearing by the time a year or a year and a half have elapsed. Women have told me that the flushings occurred as often as every few minutes during the entire day. This symptom begins to lessen at the end of a year, but may continue after three years have elapsed since the operation.

Disturbances of the heart's action are common, and rapid pulse—tachycardia—is a not infrequent symptom. Kisch[5] states that after castration in mature women, the operation is followed by atrophy of the internal genitalia, and attacks of tachycardia are frequent. The explanation depends upon the irritation of the nerve fibers included in the contracting and atrophying structures.

One patient, who was referred to me by Dr. Oliver P. Rex, presented the form of paræsthesia which I described some years ago, and which I then expressed the belief belonged chiefly to the menopause. The case is as follows:

Mrs. Y., aged forty-one years; married at nineteen years; has had six children, the youngest being fourteen years old. Menstruation regular until six months ago; there was a cessation for seven weeks, and a hæmorrhage began from the womb. An extrauterine pregnancy was diagnosticated, and Dr. Parish operated three month ago, removing a three-months' fœtus and both ovaries. The right ovary was diseased. The patient made a good recovery, and got up at the end of three weeks. Soon after this she began to have flushes of heat—had six or eight attacks a day. Five weeks ago began to have numbness in the right hand when she waked from sleep. At first there was numbness alone, then sense of prickling and pain,

* Read before the Association of American Physicians, Washington, D. C., September, 1891.

2 *University Medical Magazine*, June, 1891, p. 497.

3 Charles P. Noble, M. D., Transactions of the Philadelphia County Medical Society, April, 1891.

4 An address delivered to the French Surgical Congress at Paris, April, 1891. *Medical Record*, May 2.

5. *Wiener medisin. Presse*, May 10, 1891.

which would waken her from sleep. In a few days both hands were affected. Now both hands feel numb all the time—most intensely in the fingers, and most markedly in the ulnar distribution. When she goes to sleep the whole arm becomes numb and painful, and she is awakened. "Sleep is out of the question," and she walks the floor most of the night. The color and temperature of the hands are natural; sensation to to touch and localization, and compass points, is normal, but she is awkward about sewing, buttoning her clothes, etc. Dynamometer: R. sixty, L. forty. Three years ago the patient had an attack of numbness in the hands after a night's sleep and after washing. This got well in a month. The patient is more nervous since the operation, but only three months have passed, so this is hardly a fair test. She never had much sexual appetite, and has still less since the operation. I may mention that the numbness was relieved by full doses of ergot.

There is a widespread impression that women upon whom this operation has been done gain in flesh rapidly and become coarse and masculine in appearance. This is entirely erroneous. When diseased and suppurating ovaries and tubes are removed, the patient is generally in a condition of extreme emaciation at the time of the operation and after recovery speedily becomes fleshy—but she rarely becomes stouter than she had been before when in good health. Occasionally a woman is seen whose ovaries have been removed for some disease of the nervous system, who becomes stouter than ever before in her life; but it has never been my experience to see or hear of one who has become unfeminine in the contour of the bust or limbs. The alleged growth of coarse hair on the lip and chin is unusual, and does not occur any more frequently than it does in women whose ovaries have never been tampered with.

Patients often suffer from various nervous troubles after removal of the uterine appendages; they may be restless and irritable or depressed mentally. This seems in many instances to be due to cerebral hyperæmia. The extent of mental disturbance varies in degree and duration. In some cases there is merely mental depression or mild melancholia, but in others there is either acute mania immediately following the operation, or a mild form of insanity gradually deepens and becomes a chronic mania. Coe[6] declares that there frequently follow this operation, persistent cerebral hyperæmia, ovarian psychoses, and even active insanity. Glaevecks[7] insist that in nearly all cases where the ovaries were removed the mental condition was decidedly affected, in many instances a condition of melancholia being produced. This statement is undoubtedly too extreme, but the number of cases of insanity following oöphorectomy is large.

In connection with the cases of acute mania which follow immediately after the removal of the ovaries, it is only fair to call attention to the fact that acute mania may follow other surgical operations. I know of two cases, one a patient of my own, in both of whom an operation upon the spine was followed by active mania. Recently Dr. Simes[8] has put on record a case of insanity following oöphorectomy.

The patient had suffered from dysmenorrhœa and uterine hæmorrhage, and both ovaries and tubes were removed. The ovaries were found to be normal, but the tubes were enlarged to three or four times the natural size. On the fourth day after the operation the patient showed evidences of mental disturbance, and in a short time became actively insane. In six weeks she had to be removed to an asylum, where she remained for two months, and was discharged well. Several months later she thought her mind was not as good as prior to the operation. Her memory was bad, and she could not think as well as she used to do. She was melancholy, and had a tendency to fall asleep during the day. Four months after the operation she menstruated, three months later there was a free uterine hæmorrhage, and two months after another slight hæmorrhage. She had still occasional sharp uterine pain.

Tait[9] admits that several of his patients "became queer for a short time--that is, they were eccentric and ill-tempered." Later in his address he says that he knows of no case of insanity in his practice.

Dr. C. T. Dent[10] thinks that insanity as a sequela to surgical operation is less uncommon than is usually supposed. He thinks that the mental impression may be produced in three ways: by anticipation, by actual operation, and by after-effects. The grades of mental disturbance following operations which he mentions are: emotional disturbance, hysterical disturbance, loss of control, unreasonableness, hallucinations and mania in its various forms. He refers to a paper by Savage, late superintendent of the Bethlehem Royal Asylum for Lunatics, London, upon "Insanity following anæsthetics."

Dr. T. Gaillard Thomas[11] has recently read an important paper before the New York Academy of Medicine, upon "Acute Mania, Melancholia and Hypochondriasis as Sequelæ to Gynæcological Operations," which evoked considerable discussion at the time and afterward, in which reports of numerous other cases have been presented. Thomas reported six cases—of these six cases two were abdominal sections, two were removal of the breasts, one operation for lacerated perineum, and one for lacerated cervix. He remarked that the entire number of cases reported, including his own, amounted only to twenty-six. He suggested the following questions: Are the cases of mania and melancholia due to the operation which antedated them, or do they follow as mere coexisting states? Secondly, any great mental strain might be followed by mania; and was it remarkable that out of the large number of gynæcological operations performed in the last quarter of a century, this number of cases of insanity should occur? Were the operations in gynæcology more likely to disturb the condition of the mind than other surgical operations?

Dr. Polk thinks that women are more disposed to maniacal disturbance after operations, especially gynæcological, because, in his opinion, women are more emotional.

Mairet, of Montpellier, has collected twenty-five cases of insanity following operations from his personal experience, from which he draws the following conclusions: That individuals who are predisposed by heredity or other causes are prone to insanity after surgical operations; that the anæsthetic and the degree of surgical traumatism produce the most marked effects upon the brain.

Dr. William Goodell, in a personal communication,

6. *Medical Record*, April 19, 1890.
7. Arch. f. Gyn., Bd. xxxv. Heft 1.
8. *Medical News*, June 10, 1891.
9. *Medical Record*, May 2, 1891.
10. *Journal of Mental Science*, April, 1889.
11. *Medical Record*, April 20, 1889.

states that "two of his patients who were not previously threatened with insanity became insane a few months after the operation; and one young lady, from whom he removed two large ovarian cysts, had, after the lapse of six months, an attack of acute mania from which she died in a few days."

Dr. Graeme M. Hammond has sent me the notes of a case in which acute insanity followed the operation of ovariotomy in four or five days. The patient had previously shown no evidence of mental disease. At first there was violent mania, which abated in a few days, and a condition of chronic dementia took its place.

Dr. E. E. Montgomery, who has kindly sent me notes of between twenty-five and thirty cases in which he had removed the ovaries two or three years ago, records two who became insane after the operation. In one of these there had been previous attacks of insanity, and in the other hystero-epilepsy had been a conspicuous feature before the operation.

I have had under my own observation several cases of insanity after removal of the ovaries. The mental disturbance came on several months after the operation, and gradually deepened into insanity. While I do not believe that, as has been asserted, insanity follows in ten per cent of the cases of hysterectomy, still there are a large number of cases in which some form or other of mental disease does occur as a sequela of the operation. In many cases there is merely some peculiarity or idiosyncrasy which is overlooked, or considered a passing condition; but too many cases of grave insanity have been reported for us not to consider very seriously the risk of mental effects when the operation is performed.

The consensus of opinion respecting the sexual appetite after castration in women is that it is but little affected. Prof. Goodell, in the comunication referred to above, states that his experience is that immediately after the operation the sexual desire is not lessoned—in fact, in may be increased—but after the lapse of two or three years it decreases, and becomes finally lost. Dr. Howard A. Kelly expresses the opinion that the sexual appetite is unchanged by castration. Of fifty cases which I have examined, either personally or from notes sent to me by medical friends, I have found twenty-three in which information in regard to this question could be obtained. In fourteen of these it was asserted that the sexual appetite was the same as before the operation, and that the act was performed normally. In several the act seemed to cause pain after two or three years had elapsed since castration. In five cases the appetite had lessened. In two there was no sexual appetite, and the patients declared that it had never existed. In two the appetite increased after the operation. In a case communicated to me by Prof. Keen, the sexual desire was excessive for two years after castration, but after this time it has become about normal. In considering the effects of the operation upon the sexual appetite, one must take into consideration the large number of women are naturally without any sexual feeling.

The effects of the removal of the ovaries upon sexual appetite proves what has been long believed to be the case, namely, that the sexual desire does not depend upon the ovaries, but upon the centers in the spinal cord. Cases of onanism have been unaffected by removal of the clitoris, labia and ovaries. I have seen two cases in which onanism persisted after the operation to the same extent as before.

At the Berlin International Medical Congress, in 1890, Dr. F. Deppler,[12] of Venice, read a paper embodying the results of a study he had made in the cases of ovariotomy performed by himself. He had performed castration forty six times, obtaining a cure in thirty-nine cases. The operations were for purulent or gonorrhœal salpingitis, oöphoritis, fibroids of the uterus, etc. The following are some of his conclusions, derived from a study of the physiological consequences of the operation:

The breasts grow smaller, acquiring a strong resemblance to the male mammæ. The brown pigmentation of the nipple-areola, perineum and anus disappears wholly, as does also pathological pigmentation existing in some of the cases; the hair also turns white. The tendency to *embonpoint*, which is generally believed to exist after these operations, was not observed by the author. No changes were observed as regards growth of hair or the tone of the voice. The sexual desire remained, and was more pronounced the earlier in life the operation was performed. The operation offers no impediment to marriage; three of the author's cases had married and lived happily with their husbands for many years. In cases operated upon for uterine fibroids, the patients, even those in full maturity, lose all sexual inclination after the operation. In cases operated upon in early life for inflammatory conditions, no neuroses were seen to develop, which was not the case where women were operated upon late in life for fibroid tumors of the uterus.

As to the benefit derived by patients who have undergone oöphorectomy for insanity, epilepsy, hysteria, and the different forms of neuralgia and nerve troubles, the opinions of different observers vary to such an extent that we might believe that totally different beings and conditions were considered. Certain writers give the most glowing accounts of the benefit obtained by almost every patient operated upon, while others regard the result as being always so unfavorable that the operation is never justifiable. For instance, Dr. Ross, of Toronto, says that the removal of the appendages is never legitimate procedure in a case of purely functional neurosis, and that even when marked structural disease of the appendages coexists with severe neurotic conditions, the latter should be treated in the first instance, in the hope that operation might be avoided.

A recent writer,[13] replying to the argument of Dr. Yarnal,[14] against what he terms indiscriminate operations on the sexual organs, says: "If palliative treatment does give temporary relief to many, why waste valuable time?" and goes on to give many reasons for urging immediate operation:

"Though the 'leaven' of McDowell has not yet been potent enough for the whole medical mass, yet it has acted upon some portion of the lay mass; a woman, now and again, rises and asks for an operation. By so doing she shows fortitude and judgment that is beyond the comprehension of physicians, who look only at the mortality of operations upon cases *in extremis* from delay. Certainly the woman is right rational, not crazed, when she takes measures

[12] Medical and Surgical Reporter, May 9, 1891.

[13] "Too Much Conservatism," by M. Fisher, M. D., Kansas City Medical Index, July, 1891.

[14] *Medical Index*, April, 1891.

that will bring relief or death; that will make her generally useful, as against being made use of by the one member of society, to wit: the pseudo gynæcologist, as a filler of his purse."

As is generally the case, the truth lies between the two extremes. There certainly are a large number of cases of hysteria, neurasthenia, and allied conditions, depending upon diseased ovaries, which do not get well under the most judiciously applied treatment, and who do make a good recovery after the removal of the offending organs. In cases of extreme dysmenorrhœa this is conspicuously true. A patient suffering from the severer forms of pain at the menstrual period barely recovers from one period before another comes. On the other hand, a vast number of patients have had their ovaries removed for hysteria, insanity, and the like, who are temporarily relieved by the operation, but in few months are in as bad a condition as ever, and who recover permanently after a course of systematic treatment directed to the nervous system.

Dr. Weir Mitchell has communicated to me several cases which have been under his care which had been condemned to lose their ovaries, and who nevertheless grew strong and well after a course of rest treatment. One of these was a lady who was seen by three of the most prominent gynæcologists in this country, and decided by them to have the only prospect of recovery in the removal of the ovaries. She became entirely well without operation.

At a meeting of the Obstetrical Society of London, January 7, 1891, Dr. Playfair read a paper on "The Removal of the Appendages of the Uterus for Neurosis."[15] He detailed several cases that had come under his observation: First, a case of neurosis treated by the removal of the appendages without benefit, subsequently cured by systematic treatment; and a similar case in which the operation was recommended and about to be performed when the patient refused her consent—likewise cured by systematic treatment; third, a case of neurosis in which there was distinct evidence of structural diseases of the appendages. In this instance the neurotic symptoms were first dealt with in the hope that the patient would be sufficiently bettered to avoid the necessity of operation. The subject of hystero-epilepsy and mania, treated by removal of the uterine appendages, was considered. The general conclusions arrived at were: That the removal of the appendages is not a legitimate procedure in case of purely functional neurosis. Second, that when marked structural diseases of the appendages coexist with severe neurotic conditions the latter should be treated in the first instance, in hope that operation might be avoided. Third, that in hystero-epilepsy and hysteromania the results of operation have been so unsatisfactory that it is a procedure of very doubtful expediency, and not to be recommended.

In the discussion which followed, Sir Spencer Wells quoted from a paper of Dr. Ross, of Toronto, who says that, in his opinion, to operate on organs not diseased, for the relief of undefinable symptoms, hysterical symptoms, or epileptic symptoms, is unwarranted.

"I have seen," says Dr. Ross, "these unjustifiable operations done both in Europe and America. Many cases in which ovaries and tubes are removed to relieve certain nervous symptoms remain unrelieved. Many cases I hear of as cures are not cured. From our failures to remove nervous diseases, as hysteria and epilepsy, by castration, we can see that the ovaries play but a part in their causation, and I believe that we might as well hope for relief of those diseases by enucleation of both eyes as by removal of both ovaries, or both tubes, or both tubes and ovaries, or even tubes, ovaries and uterus."

He related a case in which he had removed the ovaries in 1886. In 1888 he was able to report that his patient had been in splendid health ever since operation, but in 1890 he had to say: "Her mental condition is not what it was before; she seems lazy, indolent and fat, and is not the bright little woman she was before the operation, even when she had her aches and pains." He also referred to a case in which a woman of his acquaintance was operated on, and her case was brought before the Gynæcological Society in December, 1888, very soon after the operation, as a practical cure. Sir Spencer Wells stated that he had seen the lady that day. She had never been well since the operation, but very much worse than before, and her case, instead of being a cure, was a deplorable and disastrous failure. He had seen other cases almost as unsatisfactory, and he fully concurred in all that Dr. Playfair and Dr. Ross had said against unnecessary and unjustifiable mutilation for transitory disease.

Dr. Alex. J. C. Skene, although himself a gynæcologist of large operative experience, opposes the removal of the ovaries and tubes for chronic ovaritis.[16]

"It is true," he says, "that chronic ovaritis does not end fatally, and is self-limited, though often of long duration. The removal of the ovaries is not free from all danger, though all cases properly operated upon have recovered, and the operation may not in all cases give complete relief. In fact, many of the cases are not much, if at all, improved; even those who are nearing the menopause, and who bear the loss of the ovaries better than younger subjects, occasionally suffer much from those nervous disturbances which follow an abrupt menopause, and have to endure pelvic pain in the region of the stumps. The clinical history of cases in which the ovaries have been removed, does not, in all cases, show great advantage over those in which the ovaries are left to complete the natural history of the disease. Younger subjects do not bear the loss of their ovaries agreeably. Some become fat, indolent, inefficient and subject to headache; others are irritable, dyspeptic and despondent, while but few enjoy general good health and mental vigor. This statement is contrary to much of the published literature, but is closer to the actual facts."

Brodwitz,[17] in a paper on the ultimate results of castration, concludes

"That in cases of general neurosis (hystero-epilepsy and epilepsy) the ovaries simply share in the central trouble, and hence castration cannot be expected to give relief. The ordinary sequelæ of castration are molimina, congestions, cardiac disturbances, flushings and vertigo, together with diminished sexual feeling in about two-thirds of the cases. Melancholy and forgetfulness are quite common, which may culminate in more pronounced psychoses."

At the fifth French Congress of Surgery, held in

[15] *British Medical Journal*, January 17, 1891.

[16] *The Medical News*, June 13, 1891.

[17] Inaugural dissert., Strassburg, 1890; *Centralblatt fur Gynukol.*, 1891; and *Amer. Jour. Med. Sci.*, June, 1891.

Paris from March 31 to April 4, 1891, one of the questions for discussion was, "What are the after-results of the extirpation of the uterine appendages in the nonneoplasmic affections of these organs?"

Sir Spencer Wells opened the discussion by saying that he continued to be favorable to the operation, but still he thought that it was too easily resorted to. Mr. Lawson Tait repudiated the statement that permanent evil results followed removal of the tubes and ovaries for disease of the uterus or its appendages, or for the relief of nervous disorders. He maintained that the changes, immediate and remote, which followed the operation were analogous to those which take place at the menopause. He thought it a wrong statement that ten per cent of the castrations for uterine fibroids bring on insanity. He thinks that in castration for nervous disorders he has not operated early enough, and he also thinks that in these cases we should operate more often than is now done.

In the same discussion, a number of speakers gave their experience as to the late results of removal of the appendages. The majority seem to have considered that the results after removal of diseased organs were generally favorable, but when for nervous diseases the after-results were unsatisfactory. For example, Dr. Jacobs, of Brussels, had operated upon fifty-eight patients since 1888; his conclusions were that the distant results are favorable in cases of suppuration of the appendages, less so in catarrhal affections, while in nervous women castration is rarely of any benefit.

Professor Le Dentu, of Paris, had operated thirty-four times. He thought that the after-effects varied in different cases. Nervous patients, he thought, suffered much longer than others. He called attention to a peculiar after-effect in the case of a woman operated upon in 1888. In 1890 she returned, suffering from violent pain in the left side, extending to the face. A small tumor was found in the vaginal cul-de-sac. Uterine dilatation was performed. On the twelfth day a large quantity of black liquid was evacuated. Since then, the tumor and pain have disappeared.

Professor Bouilly, of Paris, said that the after-effects are favorable when one has to deal with salpingitis; but such is not the case with interstitial catarhal salpingitis. As to interference with nervous phenomena he does not advise it.

Dr. Routier, of Paris, had removed since 1887 the appendages fifty-two times. The results were excellent in the great majority of these cases—that is, in pyosalpingitis the results were generally good, but in certain young people the suppuration of menstruation is followed by a "state of uncertain health."

Dr. Doyen, of Rheims, had done thirty-two laparotomies, in which three had died from the operation; in three the results were negative, one suffering from double purulent salpingitis, and the other two being extreme cases of hysteria. Seven continued to suffer with abdominal dragging-dawn pains, neuralgia and gastric crises. In twenty the results were satisfactory.

The immediate result of removal of the ovaries is almost always relief of the symptoms for which the operation was done. It is probable that in many of these cases almost any surgical operation would have been followed by the same relief. After a few weeks or months the old symptoms are likely to recur. I may be permitted to relate the case of a patient who came under my care after removal of the ovaries by one of the most distinguished laparotomists of this country, who has been identified with the operation of oöphorectomy since its inception. The following history was sent me by the family physician:

Miss A. was a puny, delicate child from birth up to six years of age, but from that time until twelve she enjoyed good health. At that time she went to a boarding school, and during the first year her health became so seriously impaired from dyspepsia that she had to leave school. Change of climate restored her to health; but two years later, on returning to her home in a malarious climate, she lapsed into a dyspeptic condition, and has been a sufferer ever since. In the spring of 1888, when twenty-one years of age, she went to a mountainous region with the hope of improvement in her general health, but soon after getting there she began to have violent nervous attacks attended with convulsions, which lasted many hours. These attacks were repeated at shorter and shorter intervals until they became daily. The affection was considered to be due to the womb or some of its appendages, and in August, 1888, the patient was taken to Dr. Battey, who removed both ovaries. She made a good recovery, and improved in her general condition very much, having no more convulsions until November, 1888, when she had one, and was then free from them for a year.

About two months later she took cold, and upon her arrival at home had several severe paroxysms of dyspnœa. The dyspepsia returned in a short time and soon became so much worse that but little, if anything, in the way of nourishment could be retained. Rectal alimentation had to be resorted to. In November, 1889, she had another convulsion, and this was followed by several others. "The convulsions came on with very brief intimation of their approach—they are generally preceded by more than the usual amount of nausea. She will say that she feels dreadfully nervous, and in a few minutes becomes rigid, and the convulsions follow. There is serious danger of her injuring herself in her tossings if not restrained. In some of her attacks it has required three or four persons to hold her on the bed. She bites herself during the attack. Chloroform, hypodermic injections of morphia, and everything else that has been tried seem to aggravate instead of relieving. There had been no irregularity of menstruation prior to the operation of oöphorectomy and no dysmenorrhœa."

In conclusion, the doctor urged upon me very strongly the fact that the patient could not take milk under any condition. "She has tried it fairly, and is always made severely sick by it." She came to Philadelphia in December, 1889, when I found a sallow and much emaciated woman, who was very weak and very nervous. She vomited within a short time after taking food of any kind. I placed her in a private room at the Infirmary for Nervous Diseases, and told the nurse in charge of her that if she had a convulsion she was to be allowed to roll on to the floor from the bed without hurting herself, and to be left alone until the convulsion was over. She had but one after admission. In spite of the warning against milk, she was ordered small quantities of peptonized milk, repeated at short intervals. This was retained and the quantity gradually incresed. To make a long story short, I will merely say that she was given a thorough course of the rest treatment, including massage and electricity, and moral influences were very

strongly enforced. In a little less than four months she had gained thirty-five pounds—from ninety to one hundred and twenty-five pounds. She was able to eat any kind of food without discomfort, walked two or three miles at a time, and, in short, was a useful member of society. I have recently heard of her as being perfectly well and strong, notwithstanding the fact that she had been living in a trying climate and having many arduous duties to perform.

I could add many similar cases, and so can every physician who sees much of nervous diseases.

Cases of insanity which occur only at the menstrual period and cases of erotomania are often relieved by castration, and a number of permanent cures have been reported.

Goodell[18] says: "Insanity, when limited to the time of the monthly periods, shows an ovarian origin, and the removal of the ovaries will then very generally cure the mental disease. . . . But, on the other hand, if the insanity is constant, though exacerbated at the monthly periods, the removal of the ovaries does but little good. . . . Another important fact that I have learned by experience, is that the removal of the ovaries cannot be depended upon for the immediate cure of nymphomania or of other erotic forms of insanity."

Tait, in the address already referred to, speaks of three cases of insanity which have been cured by removal of uterine myomata. Dr. Mitchell has related to me a case of insanity with erotomania, in one of his patients, which was cured by castration. Prof. Keen, who has been kind enough to send me notes of ten cases in which oöphorectomy was done by him, gives the histories of two cases of menstrual insanity which were completely cured by the removal of the appendages. One was well after five and the other after ten years.

Goodell, in the communication already quoted, gives twelve cases in which oöphorectomy was done for insanity or mental depression. The results were:

Mental depression, cured	1
Insanity, cured	5
Insanity, improved	2
Insanity, not cured	3
Insanity, made worse	1

Other instances of cure of insanity by removal of the ovaries could be quoted, but the above are illustrative of the experience of prominent surgeons. On the other hand, a number of cases can be detailed in which the insanity for which the operation was done was either not relieved at all or the "cure" was only temporary.

Keen has recorded one case in which the ovaries were removed for dysmenorrhœa, and an unbalanced condition of the mind ensued. There was temporary benefit, but later the patient became insane. I recall a patient in the insane wards of the Philadelphia Hospital, whose ovaries were removed several years ago in the hope of curing hysterical insanity. She was temporarily benefited, but relapsed into a condition of mania and had to be placed in the asylum.

The result of many operations for insanity indicates that a number are cured, but that most of the cases are those which were due to dysmenorrhœa or were associated with the menstrual periods. When connected with erotic ideas, or masturbation, they are seldom benefited. If there be no periodicity in the insanity, and no evidences of dysmenorrhœa or sexual disturbance, removal of the ovaries rarely does more than temporary good.

Goodell[19] says:

"In one of my cases excessive masturbation was not only kept up after the operation, but it was actually enhanced by it for at least a year, when the habit was finally overcome. In another case the erotic impulses lasted for over a year; but they ultimately ceased, with the complete loss of the sexual feeling."

I have written to the physicians in charge of the largest asylums for the insane in Pennsylvania, asking whether they had among their patients any in whom the ovaries had been removed. Had time permitted, I might have made inquiries of a larger number of institutions; still the replies which I have received may be fairly considered as a sample of what would be had from others. Moreover, it might be said that the inquiry was one-sided, as it would not show the cases in which the operation had been successful.

Dr. Chapin, of the Pennsylvania Hospital for the Insane, writes:

"In reply to yours of the 13th, I will state that since September, 1884, the date of my connection with the hospital, two women have been received whose ovaries had been removed for disordered mental condition. I do not think the operation was followed by improvement in either case, and one was certainly not as well, having delusions about the operation and her changed sexual condition. I have seen one patient outside the hospital whose ovaries had been removed, and the insanity continued."

Dr. John C. Hall, Superintendent of the Friends' Asylum for the Insane, Philadelphia, writes:

"I have seen several cases where the operation has been performed and in only one has it produced any benefit. This lady is a case of recurrent mania, and I look for her to come back sooner or later. To my mind, such operations performed after mental symptoms have developed are not productive of good results, unless in rare cases where the ovaries are very much diseased, when only partial relief could be expected."

Dr. Amelia Gilmore, resident physician in the woman's department of the Philadelphia Hospital for the Insane, writes:

"Yours in relation to removal of the ovaries for insanity is received. Besides Clara G. (the case to whom I have referred above), I have at present two patients who have had the uterine appendages removed, Maggie D., an epileptic, and Annie McG., who has recurrent attacks, with an alcoholic tendency."

Dr. S. S. Schultz, of the State Hospital for the Insane, at Danville, Pa., states that he has had no patients on whom the operation referred to has been done.

Dr. Alice Bennett, resident physician of the department for women in the State Hospital for the Insane, Norristown, Pa., says:

"So far as I can recall there are two cases now in the hospital in which the ovaries were removed for insanity."

Dr. A. H. Hutchinson, Superintendent of the Western Pennsylvania Hospital for the Insane, writes:

"During my entire residence of thirteen years in this institution I have known of but three cases who have been operated upon. Two were old cases of

[18] *Medical News*, May 17, 1890.

[19] *Medical News*, May 17, 1890.

insanity, and the operation was performed three years ago; one is still a resident of this institution, has been insane several years and is very crazy yet. The other patient was discharged from here improved, but two years after the operation suffered another attack and was sent to another hospital and is improving, but still is not well mentally, though able to be at home. The third case was operated upon just recently and is one of acute melancholia. She is still a patient with us and I think will recover after awhile, though her recovery will not be permanent. She recovered in this hospital from her first attack two years ago. My experience is limited, as you will see, but I am not very much impressed with its importance and have never recommended it. The operation has always been done by some outside physician and at the request of friends."

The late results of castration in cases of epilepsy and hystero-epilepsy are even more unsatisfactory than in insanity. There is almost always temporary relief, just as is the case after trephining, but there is a recurrence of the attacks within a few weeks or months. Dr. Graeme Hammond has communicated to me a case in which epilepsy came on almost immediately after an operation for removal of the ovaries. Goodell gives one case of epilepsy cured, one "improved," and two not improved by removal of the ovaries.[20]

Dr. Engelmann, of St. Louis, has communicated to me a most interesting case of an idiot girl of 19 years who had never menstruated. She was also epileptic, the attacks came on just before the time when menstruation should have begun; and the attacks continued to occur at monthly periods, so an operation seemed to offer a prospect of success. The ovaries were removed at the urgent request of the parents. The patient improved greatly after recovery from the operation. She was reported to have no fits for two years, became much more intelligent, and, in fact, was stated by her family to have become a useful member of the household. Had the history of the case ended here, it would have been worthy of being placed among the achievements of the gynæcologist; but I have received a later account of the case, through the kindness of Dr. W. B. Dorsett, of the Female Hospital of the city of St. Louis, under whose care the patient had been. He states that the patient died May 3, 1891, in a convulsion. Dr. Dorsett thinks that the improvement which followed the operation might have been due to hypnotic suggestion, as he practiced it upon her daily for six months while she remained in the hospital. After the patient returned home her parents represented her as being better than she really was.

Dr. Engelmann also related to me two other cases of epilepsy in which the appendages were removed. In one there was improvement but not complete relief. In the other there had been a gradual disappearance of the attacks. In one of Dr. Price's cases there was complete relief to severe attacks of hystero-epilepsy after oöphorectomy, although after an interval of a year she had another attack after taking ether for the removal of an ingrowing toe nail.

A patient under my own care had most violent attacks of hystero-epilepsy after removal of the ovaries.

The trouble is to determine whether the cases which have been apparently cured by castration have really been cases of true epilepsy or were only cases of hysteria.

When the operation has been done for the relief of pelvic pain it does not by any means invariably accomplish its object. If the pain is due to inflamed or diseased conditions of the structures, the pain is often relieved for the time, but before many months it returns in the stumps of the ovaries, to be more severe than ever. When the pain is neurasthenic and not associated with disease of the ovaries, removal of these bodies seldom gives relief. To sum up:

The remote effects of removal of the ovaries and tubes upon the general health are, as a rule, to improve nutrition and to better the strength, especially if the operation has been done for diseased ovaries or pus tubes.

That excessive gain of flesh is rare, and that change of voice, growth of hair upon the face, the loss of feminine characteristics do not occur.

That the sexual appetite in women is seldom changed by castration within two or three years after the operation, but after several years it becomes lessened.

That it is often the case that after this operation patients are more nervous than formerly, and mental disturbances of various forms, insanity and epilepsy, not infrequently follow it.

That the influence of the operation is sometimes good upon insanity and epilepsy which are associated with severe dysmenorrhœa or occur periodically at the menstrual epochs; but when the insanity is constant, although it may be aggravated at the monthly periods, removal of the appendages is of no benefit. Hystero-epilepsy is seldom permanently cured by the operation. Prolonged after-treatment is generally necessary to relieve such cases.

Local pain is often not relieved by the operation.

Certain cases of neurasthenia which are associated with dysmenorrhœa; or with structural changes of the ovaries, are cured by the operation; nevertheless, no such case should be subjected to the operation without beforehand having the benefit of prolonged and patient treatment. It is unjustifiable to remove the ovaries and tubes in cases of neurasthenia, hysteria, etc., when these organs are healthy.

Many prominent gynæcologists, including Goodell, Kelly, Price, and others, say that now they seldom remove the appendages for nervous diseases if the organs are sound and healthy.—*Univ. Med. Magazine.*

[20] Since writing the above Dr. Goodell has sent me the notes of two cases. The first is a case of severe epileptic convulsions, several a day for a week or ten days following every catamenial period. In these fits, she bit her tongue and cheeks very severely. Her mind had begun to fail, as evidenced by hebetude and also the memory. Over a year ago he did an oöphorectomy. Since then, she has had no attacks or any intimations of them, and is perfectly well in every particular; does more work, indulges in more dissipations than for the past twelve years. This is what her husband says in a letter.

Dr. Goodell mentions another case on which he operated six months ago which has been greatly benefited.

New Instruments.—A Universal Nasal Saw.

By Charles A. Bucklin, A. M., M. D., New York.

This saw combines the advantages of similar instruments, obviates their defects, and represents the conclusions resulting from an extended experience.

The handle is of sufficient size to give one a firm grasp, which is important when the bony deformity is large. Being of aluminium, it is aseptic and light, notwithstanding its size.

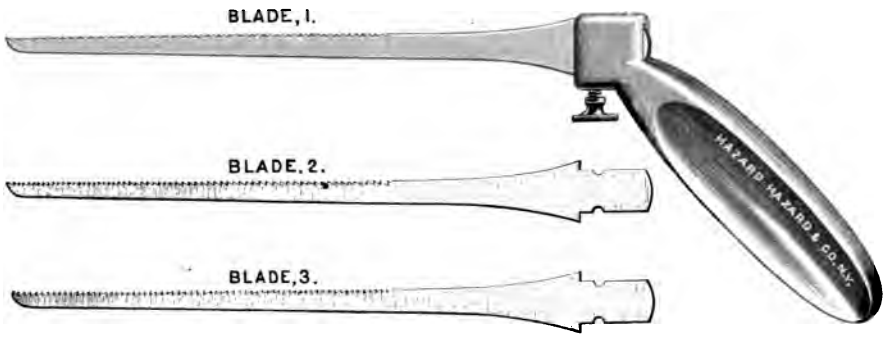
The requirements for nasal saws are as follows: They must have the necessary length and strength. They must cut without springing the septum out of its normal position by binding. A properly made saw will not displace a deformity in the nostril before the the section is completed.

These desired results are obtained by regulating the size, thickness and shape of the saw teeth.

This instrument has three reversible blades, six inches long, containing three and one-half inches of cutting teeth.

Each blade is designed to overcome special difficulties. They are not hampered by probe points, and may be rapidly withdrawn and reentered through the cuts they make when hæmorrhage or a change of saw makes it desirable.

For meritorious reasons, I incorporate in an unaltered state, as one of the elements of this instrument, the saw-blade suggested by Dr. Bosworth, and designate it as Blade No. 1, or the Bosworth saw. This blade consists of perfectly cone-shaped teeth, thirty to the inch. It is made thin, and binding is avoided by dividing the cutting power equally between both sides of the teeth.



Conditions are encountered where it is desirable to cut only as the saw advances. Blade No. 2 will meet these conditions. This blade would bind were it not for the fact that the teeth are thirty-two to the inch. They rake sufficiently forward to enable the finger to determine the "rake," as the teeth are drawn over it, while on the return stroke the release is complete.

This blade is very satisfactory for the following reasons:

1. With the head firmly placed against a head rest, the most natural way to cut with a saw is toward the support.

2. In attempting to remove the inferior turbinated bone entire, the spring of its posterior end frequently causes other saws to bend sufficiently to defeat the operation, which difficulty is not experienced with Blade No. 2.

3. Deformities of the septum which terminate at their posterior end in a delicate ridge will readily catch on teeth which cut on the return, thus springing the septum toward the saw. When this accident occurs a single stroke may cut directly through the septum. These dangers are also obviated by Blade No. 2.

Exceptional conditions may arise where it is desirable to use a saw-blade which cuts on the return stroke.

Blade No. 3. This blade is less frequently useful than either of the others. It can only be used on the turbinated bones in rare cases where Blade No. 2, from some accidental peculiarity in the formation of the bone, cannot be used. Peculiarities in the deformities of the septum may present exceptional cases where this blade will work better than the others. It is, however, liable to spring the septum in and undesirable direction, producing accidents already described. Still the instruments would not be universal without this blade.

I claim that this saw will remove the average bony deformity found in the nose in a more practical and satisfactory manner than any other appliance.—*Medical Record.*

The Favorable Time for Impregnation, and the Vitality of the Spermatozoa.

Prof. Bosse (*Archiv. Obstet. Gyn.*) has made some interesting studies on these points, about which considerable differences of opinion have prevailed among authorities.

First, as to the most favorable time for impregnation. His first series of observations were with women who became pregnant for the first time immediately after marriage, and wives of sailors where the date of intercourse could be definitely established, followed by periods of long absence.

There were twenty-seven such cases, in all of which except one the date of confinement made it probable that impregnation occurred during the four days immediately following menstruation. In the exceptional case intercourse took place seven days before menstruation and not again for a month. There are two alternatives, either that the confinement was tardy, as it did not occur until the 285th day, or that, as the author has shown is possible, the spermatozoa retained their vitality in the vagina until after the menstruation, and impregnation occurred then.

His second series of observations is of cases of artificial impregnation. He reports eleven cases, of which nine were successful. In one the successful injection was made the day before the menstruation occurred. In the remaining eight, after several unsuccessful attempts at other periods, the successful injection was made in five cases in the twenty-four hours following the cessation of the catamenia; in two, on the second day, and in one on the third day.

His third series of experiments was made to determine the length of time during which the spermatozoa retained their vitality in the vagina. His methods, which should be studied in the original, were apparently conducted with the most scrupulous care, and the results he arrived at were as follows:

1. Of eight cases where the semen was deposited in the vagina before the menstruation and examined for afterward, in four no spermatozoa were found; in three they were found alive; in one dead.

2. Of twelve cases where the semen was deposited after a menstrual period, in four no spermatozoa was found; in eight they were found living at from three to seventeen days subsequently. These investigations justify the author in concluding that the favorable time for impregnation is immediately after the catamenia, that the spermatozoa may retain their vitality for at least seventeen days in the vagina and even through a menstrual period, and that cases of prolonged gestation may be explained by the fact that

fecundation may have taken place a number of days after the last cohabitation.

While there is a great liability to error in investigating so delicate a subject as this, yet these observations seem to have been very carefully made and are a valuable contribution to the subject.—*Med. and Surg. Reporter.*

Peroxide of Hydrogen in Typhoid Fever.

By F. H. Wiggin, M. D., New York.

Having had good results in using preoxide of hydrogen locally in diphtheria and tonsillitis, and in infected wounds, it occurred to me when a case of typhoid fever came under my care, during my summer practice, that this remedy might be beneficial, it being the most powerful nonpoisonous germicide we possess. On August 24th I was called to see Abby M—, who gave a history of having been ill for a week with fever and diarrhœa. On examination I found a characteristic case of typhoid fever, with temperature 104½° F.; pulse 130; sore spots, abdominal pain, tympanites, diarrhœa, and mild delirium. I prescribed one onnce of fifteen volume peroxide of hydrogen to eight ounces of water, to be taken every three hours, by the mouth. On the following day I found the patient more comfortable; temperature, 103° F.; pulse, 112; had had only two movements during the twenty-four hours; less delirium and less pain in head. On the 25th had had one movement; temperature, 102° F.; pulse, 104; less tenderness in abdomen, and pain in head diminishing. On the 27th, temperature, 100½° F.; pulse, 98; no movement, tympanites disappeared, and head, though still weak, clearer. On the 29th, temperature, 99½° F.; no movement. On the 30th, temperature normal; pulse, 84; formed movement. The case now went on uninterruptedly to recover, with nothing further of interest to report. On the 9th of September I discontinued my visits, the patient being discharged cured, though weak.—*Med. Record.*

The Use of Chloroform in Labor.

By E. T. Rulison, M. D., Amsterdam, N. Y.

The victim of any disease or accident requiring a surgical operation is given an anæsthetic (without even a request being made for it) to enable him to pass through the ordeal without pain. The dreaded surgical operation is thus deprived of its greatest terror and the patient awakes with a happy feeling of relief and with a minimum amount of shock. This being admitted without debate, why are the great majority of our lying-in patients allowed to endure the travail of childbirth without the hand of science being extended to them in relief? As a rule the woman in labor is allowed to endure the most excruciating pain to the bitter end without one effort being made to alleviate her sufferings. And why? Simply because tradition handed down by one old woman to another says it is wrong and in fact wicked to interfere with the laws of nature.

To this specious kind of reasoning we have all listened, and have, perhaps, too often allowed ourselves to remain inactive. How many of us insist upon using chloroform in all cases not contraindicated? In nearly every case of confinement you will find some who are prejudiced against its use because they know nothing whatever about it. When offered its use and opposition is met with, the physician is too apt to shrug his shoulders and imagine he is relieving himself of all responsibility by simply saying, "Do just as you like." When he does this he is shirking an imperative duty, just the same as the surgeon would that neglected to administer an anæsthetic when about to do a capital operation. The patient and assistants must be properly educated to it use, and ofttimes the nurse will bear a little educational work before she will act in full sympathy with the attending physician. Notwithstanding the ignorance existing concerning its use, the principal reason for its not being more generally used is due to the fact that physicians are timid in using chloroform as they usually do by clumsily employing a handkerchief as an inhaler. By this mode of administration, either the physician must attend to it himself or some one competent to do so, and even then its use is attended by no little risk, as fatal narcosis may follow a temporary suspension of vigilance. As a result, the use of chloroform is generally unsatisfactory and is not given with that confidence which inspires its constant and continual use.

Several years ago, I came across one of Dr. Batterskall's inhalers and at once the idea occurred to me that it was just what I wanted to use in my confinement cases. It is so constructed that not a drop of the anæsthetic is lost. The reservoir is cylindrical in shape and so arranged with valves, openings, etc., that the anæsthetic can be easily given in large or small quantities as desired. During the first stage of labor, the inhaler is so regulated that a small amount of chloroform is used, just enough to make the patient comfortable, but not suffcient to produce full anæsthesia.

The inhaler being elongated in form and weighing over nineteen ounces, makes it unnecessary for any one to attend to the anæsthetic except the patient herself. As soon as unconsciousness approaches, the inhaler drops from the face and consciousness of pain gradually returns, when it is reapplied. When the head is well down on the perineum and only a few pains are necessary to complete the delivery, some one is directed to keep the hood of the inhaler to the face until the head is delivered, when the anæsthetic is withdrawn and not given again unless some complication should be discovered requiring its use. By the proper administration of chloroform in labor the following results are sure to be attained:

1. No pain—hence no nervous shock—consequently the "inevitable chill" does not appear.
2. It reduces the number of perineal tears to minimum.
3. It shortens labor and in several ways greatly relieves the attendants.
4. Childbirth being robbed of its chief terror, the tendency to resort to criminal practices is reduced and population consequently increased.
5. Brings increased respect for the medical attendant. The gratefullness depicted upon the countenance of the woman when informed by her attendant that she is a mother (having become so without pain) cannot fail to arouse in him thoughts so pleasing that he is apt to forget, for a moment, that a doctor has anytrials.—*Medical and Surgical Reporter.*

"Big G" for gonorrhœa is a fluid mixture of boracic acid and hydrastis.—*The Medical Standard.*

Western Medical Reporter.

A Monthly Epitome of Medical Progress.

JOHN E. HARPER, A. M., M. D., EDITOR.

G. FRANK LYDSTON, M. D., HUGH BLAKE WILLIAMS, M. D., } ASSOCIATE EDITORS.

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THE EDITOR would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information should be accompanied by the full name and address of the writer, although not necessarily to be published. All communications should be addressed to

WESTERN MEDICAL REPORTER, 163 State Street, Chicago.

The legislature of Georgia was possessed of a large and virtuous idea and hoped by putting it in the form of a law to earn reward and length of service in the State capitol. This idea when it took form became a bill to prevent drunkenness among doctors. It made inebriety a crime in physicians. The governor vetoed the bill, objecting to class legislation of such a pronounced type.

The Washington correspondent of a Chicago daily paper has telegraphed that Dr. John B. Hamilton, ex-Surgeon-General of the Marine Hospital Service, is in Washington endeavoring to secure his former position. Dr. Hamilton resigned the surgeon-generalship and accepted the rank of surgeon in order to become professor of surgery in Rush College. Dr. Walter Wyman, who succeeded him, is reported as viewing his candidacy with feelings of anything but satisfaction.

Dr. William F. Waugh, the talented editor of *The Times and Register*, has announced his intention of disposing of his practice in Philadelphia and removing with his journal to this city. By this action Dr. Waugh substantiates the claims made by his friends that he is a man of unusual ability and abreast of the times. This city can well support another weekly medical publication, and the profession will welcome the newcomer and give him and his bright paper the enthusiastic and honest support characteristic of Chicago and Chicagoans.

The crop of applicants for the positions within the gift of the county board just inducted into office is much larger than can be harvested. The doctor "with a pull" will win, while merit and worth unbacked by politicians and friends who run ward meetings will be relegated to the rear, as usual. When will the great public learn that hospitals and charities must be divorced from politics before they can be useful and pay in good work a fair return for the money invested in them? Chicagoans are proverbially quick-witted, but in this instance they belie their reputation.

The outbreak of trichinosis on the Bremen bark Nixi at Iquique was taken as a text by German editors to declare that the meat inspection instituted by this government was a mere formality and the demand was made that the exclusion of American hog products from the empire be continued. Investigation shows that the pork eaten was of Chilian origin and was eaten *raw*. In time the necessity of sterilizing pork by cooking may become apparent to all the Germans, but until it does trichinosis may be expected. Meantime we rejoice that the attempt to make free American pork subservient to the pauper pork of Europe has failed of its object.

Dr. Berge, of the New Orleans Lazaretto, has reported three cases of leprosy improved by the administration of and inunction with chaulmoogra oil. The rose-hued description of his results might lead one to think a specific had been discovered for the tubercular form of the disease. Some years ago the chaulmoogra oil had its vogue and, like all other new remedies, seemed efficacious in the beginning. Loss of confidence in its therapeutic action followed when it became apparent that lepers placed under good hygienic conditions, well fed and built up by general tonics, improved as fast as did those who were treated with chaulmoogra. A gentleman of wide and varied knowledge once remarked that "chaulmoogra oil has no more therapeutic action than any other rancid grease." That he was correct is the opinion of the majority of physicians who have administered it in leprosy.

Er. J. F. Baldwin, in the Columbus *Medical Journal* reports an unusual case of pelvic dropsy. The patient, a married woman of twenty-three years of age, had projecting from the vulva a tumor as large as a cocoanut. The tumor had existed for two years and from contact with her clothing had ulcerated and become painful. On examination the base of the tumor was found to be the vaginal wall. It had the appearance of a huge rectocele. Further examination revealed two tumors in the pelvis. Under an anæsthetic a pint of serum was drawn off with an atomizer. The tumor reappeared. The sac was then incised and a thorough examination made with the finger. The sac proved to be a prolongation of Douglas' cul-de-sac, an opening just posterior to the uterus connected it with the abdominal cavity. On one side was an ovarian cyst, on the other a cyst of the broad ligament. Either cyst was as large as an orange. The fluid resulted from the pressure of the cyst on the veins of the broad ligament. As the patient objected to the operation for removal of the cysts, the cavity was thoroughly rubbed with the finger wetted in a $^1/_{1000}$ solution of corrosive sublimate. The incision was closed with silk sutures and the patient kept quiet for several days. The resulting inflammation obliterated the sac and now the patient claims to be in perfect health.

Dr. Wm. H. Walling, in the *Medical World*, says that goiter may be treated by galvanopuncture in two ways. The first one with one or more needles thrust into the tumor, attached to the negative pole of the battery, with the positive resting upon the sternum, or both poles may be used in the growth, by suitable needles, those for the positive being of platinum.

The needles I use are mounted for me by Mr. Fleming, of this city, at my suggestion, on the ordinary cord tips, which form a most excellent attachment. There are four in each gang. Those used with the negative pole are what are called embroidery needles; the positive gang are of platinum and about the same size. All are insulated with shellac to within a quarter inch or so of the point. They should be thoroughly sterilized before using, as well as after use.

The technique of the operation is as follows: Wash the skin with soap and water, followed by a sublimate solution. Commence with one needle, the negative, and use a very mild current, only one or two ma., or even less, and increase as the patient is able to stand

the application, until fifteen or more ma. may be reached with one to twenty minutes duration. If very small needles are used, such as epilation needles, several may be inserted at once.

If both poles are used in the growth, use less current and make the sitting shorter. I think it better to use but one pole in the tumor, and that the negative. If desirable, cocaine may be used by hypodermic injection, before inserting the needle.

Change the location of the positive at each sitting and give plenty of time for any local or constitutional disturbance to subside before making another application, say ten days to two weeks. Use a large pad for the indifferent pole.

No especial attention to the small puncture will be necessary as a rule.

The time required will vary, but from six to twelve months must be allowed, and a cure is very probable. Let it be remembered, however, that book knowledge, or even explicit directions just how to proceed, will not of itself insure success.

Dr. T. D. Crothers, the eminent authority on inebriety, writes to the *Medical Record* anent the chloride of gold:

Practically, the bichloride of gold is a therapeutic nihility. So far, the best authorities agree that any form of gold is inferior to iron as a medicine. Any physician can show that a combination of cocaine, strychnine and atropia, or other similar drugs, used hypodermically, will effectually check the craze for spirits. As long as it is given two or three times a day, all forms of alcohol will be distasteful and abandoned under all circumstances. This is simply chemical restraint, which is well understood in all the insane, inebriate and private asylums of the country. The permanent cure or restoration of these complex insanity cases, in three or more weeks, by chemical restraint, is startling to say the least.

The extraordinary confidence of permanent cure, and the almost enthusiastic delirium to make it known by the persons who have taken this treatment, is not only startling, but unknown in the history of other diseases.

Psychologically, this unusual interest marks a distinct stage in the advance of every great truth. The statement that inebriety was a disease and curable has passed the stage of denial and opposition, and come to the second period of credulity. This is the time for specific remedies, and the opportunity for the quacks and camp-followers of science, who, recognizing the demand for help and the confusion of facts and theories, take advantage of the situation for the most selfish purposes.

By and by this period of credulity will be followed by a scientific era of organized fact in which specifics and extravagant claims will disappear. The bichoride is only one of more than a dozen different remedies on the market and advertised as specific cures of all forms of inebriety. All these remedies are sustained by innumerable certificates of clergymen, editors and cured patients, and even physicians' names appear as references. Two facts seem to be very prominent in this bichloride movement. One, the intense interest of the public in any possible therapeutic measures that will check inebriety and relieve or cure the victim. The other, the dense ignorance and consequent credulity manifest for the remedy or method of treatment that by shrewd advertisement becomes most prominent.

The nature and value of alcohol and its effects on the body have, during the present year, been more widely discussed in medical circles than ever before. Political parties, societies and churches have all manifested unusual interest in this topic. Public sentiment has passed beyond the realm of the exclusive use of moral remedies, and with childish expectancy is ready to welcome any mysterious medication that promises unusual and positive results. No matter what remedies are proposed or theory advanced of their action, they are accepted simply on the statements of nonexperts and enthusiasts.

Thus one remedy follows another in regular succession until the period of credulity and empiricism is replaced by one of scientific research. Inebriety is a complex insanity, involving borderland questions and ranges of causes that are unknown to the most advanced students of medicine and psychology. Exact theories and exact remedies are always reflections of the ignorance of the authors.

The same great principles of scientific truth obtain here as elsewhere. There are no "short cuts," no miracles, no discoveries that grow on mystery. Great facts and truths are never found except along the great trunk lines of research, where they can be verified and confirmed by critical experience and study.

A Hospital for Contagious Diseases.

The political doctor has long been an object of suspicion among his brethren, but the fact that any legislation can be secured restricting the profession, makes it apparent that doctors should have political opinions and make themselves felt in all campaigns. In this city the profession has worked year in and year out for the establishing of a hospital for contagious diseases. County Commissioners have heard them not, for they were not factors in politics and had no "pull." At last the public became aroused. It saw a home for inebriates, asylums for the insane, homes for orphans, and hospitals for medical and surgical cases, but no place where the victim of small pox or scarlet fever could be cared for. It came to know each case of contagious disease wandering through the city was a focus from which death radiated. The unfortunate was not only condemned to death, but to kill his fellows. When the public took up the matter the newspapers lent their aid.

The incoming County Board has declared in favor of the hospital and if party expediency is not more important than public demands, Chicago will ere long have no need to blush when the question of the disposition of small pox patients is discussed.

A Miscarriage of Justice.

In a neighboring State a physician has just been sentenced to one year's confinement in the state prison on a charge of burglary. He plead guilty of the offense but offered in extenuation proof that he was an opium habitue and consumed daily narcotics in quantities sufficient to kill an ordinary man. The court expressed his pity and sympathy for the unfortunate and imposed the lightest sentence the law allowed. This case demonstrates that the law relating to the responsibility of opium fiends is not sufficient.

To one who knows the mental, moral and physical

depravity resulting from this pernicious habit, it seems that an opium eater should have the same protection thrown around him that the law gives the lunatic. In this instance the accused was a man of prominence, wealthy, highly connected, and with every surrounding influence calculated to restrain him from entering upon a criminal career. Every circumstance in his past life goes to prove that mental and moral failure must have occurred before he became a burglar. To punish such a man is idle and useless, if not criminal. If the court did not feel that the charge should be dismissed, it would have subserved the interests of humanity and justice immeasurably better by suspending sentence and committing the victim of his own excesses to an institution where he would have been treated for his baneful habit and restored to society and usefulness.

Abstracts.

Dermatology.

Cutaneous Geromorphism.—A. Souques and J. B. Charcot. *N. Y. Med. Abstract.*—A. S., female, aged 21 years, was until about 11 years of age a perfectly healthy and intelligent child, having had none of the usual diseases of children. The family history showed the father to be sober, and except for gastric pains, healthy, but the mother had been confined in an asylum for two and a half years for treatment, following a confinement in 1881. There were two male children, one dying from meningitis at six years, and the other from an accident while nursing.

When this girl was ten years of age she exhibited a tendency to become frightened at things, especially the whistling of a locomotive and this has continued up to her present age. At this time she also began to suffer from severe headaches, and pimples formed on the body, which at first was diagnosed as variola but after a few days it was difficult to form an opinion as to what caused them. They became as large as a bean, being first red, then violet and then white. They lasted about six days, and then disappeared without ulceration or scar.

Two months after this she was presented at hospital for treatment and the change in the skin was rapid from this time on. In fifteen days the appearance of the skin resembled the scales of a fish, and although various means have been tried from that time to her present age, nothing has served to change her appearance or check the progress of disease. Aside from her look of age, there is nothing old about her, memory being precise, and she is rather above the average intelligence. Sensibility, as well as cutaneous sensibility is normal, and there is no color blindness nor retraction of the visual field; but slight dimness of vision and no indication of the arcus senilis.

Gynæcology.

Double Dermoid Cyst of the Ovary.—B. F. Baer, M. D. *The Medical and Surgical Reporter.*—The patient, thirty-two years of age, began to complain of pain in the right ovarian region two years previously, continuing ever since with increasing severity. She had had two children, one only four months before coming under observation. Labor was normal and child strong and healthy.

Examination revealed the abdominal wall extremely emaciated and relaxed, and through it could be detected a jagged mass, irregular, lobulated, flattened in shape and quite tender on pressure. There was also a tumor in lower pelvis, the size of one in abdominal cavity, which was as large as a child's head. This was immovably fixed, but not tender. The uterus was pushed up and to the right. An operation was decided upon and performed under anæsthetics, in the following manner:

An incision two inches long was made midway between the umbilicus and the pubis, exposing the tumor to view, which showed the peculiar color of ovarian cysts. What seemed to be the broad ligament and Fallopian tube was stretched and flattened out against the posterior surface of the superior strait and held in that position by the pelvic tumor. When the tumor was punctured with a trocar more than a pint of the peculiar oily substance, which is characteristic of dermoid cysts, flowed out, and when the trocar was withdrawn the puncture was plugged and filled by a mass of hair. By manipulation and force this was drawn through the small opening. After ligating the pedicle and separating the tumor, which was of the left ovary, with great difficulty the one in pelvis was dislodged and brought up to the incision and also punctured. Fluid similar to the first flowed out, and after pedicle was ligated and severed, the abdomen was thoroughly cleansed and the incision closed.

Heart failure occurred on the second day, but was controlled by active stimulation and patient went on to a complete recovery, sitting up on the eighteenth day after operation.

Ophthalmology.

A Case of Pulsating Exophthalmos.—P. B. Wing, M. D. *Archives of Ophthalmology.*—A young man about twenty-two years of age, and a laborer fell some distance, striking on his head, and remaining in an unconscious condition for twenty-four hours, after being admitted to hospital. He was discharged in ten days apparently well, but five months after the injury the right eye began to protrude, increasing so much that in a short time the lids could scarcely be closed over it. The conjunctival vessels were large and tortuous and vision about $^{20}/_{200}$. There was a distinctly pulsating tumor at the upper and inner angle of the orbit, but no pain or soreness had ever been felt at any time. The eye could be made to recede by pressure, and when applied upon the common carotid artery, it caused the pulsations to cease.

There was no doubt that there had been a fracture at the base, passing across the cavernous sinus and causing a communication to exist between it and the internal carotid artery, thereby forcing arterial blood directly into the ophthalmic veins, causing the great distension and strong pulsation. Ligation of the common carotid was advised as the operation offering the best relief. This was done and the pulsations ceased at once, and never returned. The eye began to sink into its place and in fourteen months after operation the protrusion was not noticeable, except upon close observation. Vision $^{20}/_{40}$. +

DIPHTHERITIC CONJUNCTIVITIS TREATED BY CONTINUOUS ANTISEPTIC IRRIGATION. E. L. Oatman, M. D.—*Medical Record.* In the spring of 1885 an epidemic of purulent conjunctivis prevailed in a children's asylum, coincidently with a fatal type of diphtheria. A child aged ten years, while convalescing from the latter, contracted the ophthalmia, and twenty-four hours after there was a severe case developed of double diphtheric conjunctivitis, the palpebral and ocular conjunctiva were infiltrated with and covered by typical diphtheritic membrane. Central corneal necrosis had already commenced and the case demanded immediate operative procedure.

Thoroughly cleansing the eyes with a saturated solution of boric acid, canthotomy and parancentesis was performed on both eyes and by means of a fountain syringe the conjunctival surfaces were continually irrigated by playing a gentle stream into the eyes alternately, every few minutes, for four days with the boric acid solution, the lids being averted. For twenty-four hours the fluid was used ice cold, but at the end of this time the false membrane showed signs of separation, and had not extended to the canthotomy wounds. The corneal opacities had, however, increased and the fluid was now used at a temperature of about 100° F.

Improvement commenced the following day, which continued uninterruptedly until recovery. During the treatment of case, hourly doses of tinctura ferri chloridi were given with a liberal supply of milk punch.

Obstetrics.

TETANUS FOLLOWING A MISCARRIAGE.—H. F. Brownlee, M. D. *New England Medical Monthly.*—Mrs. W., a German and apparently strong and healthy, thirty-eight years of age, had had two children with no miscarriages, and was pregnant with third. One week after first seeing her was called during night on account of threatened miscarriage, and upon examination found a partially dilated cervix, pointing almost directly backward, and a large lateral laceration, the surface of which was very rough and granular.

She was soon delivered of a four months' fœtus, followed by the placenta, a small portion of which was missing. The uterine cavity was well irrigated and she was given morph. sulph. to relieve the after pains, which were very severe, but the missing piece of placenta being passed in a few hours, she soon became quite comfortable. The flow continued normally, with no rise of temperature, everything indicating a natural recovery, and after the fourth day she was lost sight of for eight days, when marked trismus with rigidity of the muscles of the neck set in. She complained of great pain down the spine, and there were mild spasms of the jaw, the head being drawn markedly backward, every five or ten minutes. There was no tenderness of the abdomen, and but little discharge from the vagina.

It was impossible to irrigate the uterine cavity, on account of the cervix cavity pointing backward, and preventing the catheter from entering. Large doses of bromide and chloral hydrate were administered, and a short time afterward she was placed in Sim's position, the cervix pulled forward with forceps and the cavity washed out, but nothing was found in the uterus. The chloral hydrate was repeated in sixty grain doses every hour, and later increased to 100 grains, and she soon became quiet and slept soundly. The first day there was no rise of temperature, but the second it was 100½°. She appeared to rest quietly all day, but during the night she passed into a violent convulsion, requiring several persons to hold her in bed. A second convulsion soon followed during which she died.

CONTRACTED PELVIS: SPONTANEOUS DELIVERY AT THE EIGHTH MONTH.—Professor Tarnier (*Journal des Sages Femmes*, July 16, 1891,) describes a case where a woman, eight months pregnant, was admitted into his wards after having suffered from discharge of a watery fluid for three days. It was clearly premature rupture of the membranes and not hydrorrhœa, as the water escaped in gushes whenever the woman was touched and whenever the child moved. The patient was put to bed, but no special precautions were taken to check the delivery, for she had reached the eighth month, when the child is quite viable, and the woman's pelvis was distinctly narrow, though otherwise well formed. At term the chance of arrest of the head would have been considerable. Two days after admission a well-formed living child was born spontaneously. Professor Tarnier has known pregnancy to continue for a month after the rupture of the membranes, absolute rest and the cautious employment of laudanum being the treatment. He treated a case like this at the sixth month, and the patient carried her child to a little over the seventh. The child was placed in a *couveuse*, and its life was saved.—*Brit. Med. Jour.*

Therapeutics.

COCAINE IN VOMITING.—M. W. Everson, M. D., in *College and Clinical Record*, calls the attention to the special merit of cocaine in nausea, particularly in that of pregnancy, gastric ulcer and cancer.

"In vomiting of pregnancy ⅛ to ¼ grain three times daily will generally be sufficient.

"Cocaine will be found of value where other remedies fail. I have found it successful in those cases of vomiting of pregnancy in which the so-called specifics, oxalate of cerium, etc., have failed. In gastric cancer it will often arrest the vomiting for days at a time, thus giving the stomach rest and allowing more perfect attempts at nutrition.

"In every case in which it was used the vomiting and pain were noticeably lessened, and the patient was made vastly more comfortable.

"But, regardless of the above special diseases, cocaine is of use in vomiting from any cause; and there are many cases attended by vomiting met with by the practitioner of medicine for which no cause can be immediately assigned. In these cases its action is manifested at once, and after the first dose the vomiting usually ceases. The most desirable way to administer cocaine is in pill form, but it may be given in solution when a proper vehicle is added.

"Cocaine can be given in suitable doses without fear of depression; indeed, it can be given to a double advantage where a weak circulation exists, as it is to some extent a circulatory stimulant. It is also of use in vomiting of enterocolitis of children, a disease which is so frequent in our large cities during the heated term, and in which vomiting is so prominent a symptom. In the latter affection it is best given in combination with bismuth. To a child two years of age I give ⅛ grain of the hydrochlorate at a dose, and repeat it every few hours, *pro re nata.*"—*Pharm. Record.*

INDICATIONS FOR ADONIDIN.—*Med. Register*, Feb. 23, 1889. Adonidin is a glucoside obtained from *adonis vernalis*, and has been before the profession for some time as a cardiac tonic. It has gradually found a place in the relief of heart troubles, and makes an important addition to our materia medica. Its action is said to be exerted especially upon the heart, and so far its action upon the blood vessels has been scarcely perceptible. Its diuretic action is comparatively slight, but it seems to occupy a position in properly selected cardiac affections, which is not taken by either digitalis, strophanthus or convallaria, and any information regarding its clinical application is therefore particularly welcome. The dose of this glucoside ranges from one-sixth to one-tenth grain, but from the fact that the larger dose at times causes more or less headache, the smaller dose will doubtless prove more suitable for the general class of cases. If the drug is well tolerated, and good effects follow its administration, the frequency of the dose may be readily increased.

In the course of a communication to a late issue of the *Lancet* upon Adonidin in the Treatment of Heart Disease, Dr. Thomas Oliver gives a history of six cases in which this remedy was used with marked success, and, according to his observations, the value of the drug depends largely upon the character of the lesion. Where it is desired to bring only the heart under the influence of the medicament, as in the case of mitral and aortic regurgitation, adonidin is par excellence the remedy. The cases referred to were all of this character, and, in addition, some of them had been sufferers from rheumatism, but in all there was decided action and prompt improvement following the exhibition of the drug. No decided diuretic action was noticeable, although in nearly all of the cases the aggregate amount of urine passed within twenty-four hours materially increased over that which existed previous to its use. Dr. Oliver believes adonidin has a sedative action upon the heart similar to that of belladonna.

BICHLORIDE OF MERCURY AS A PREVENTIVE FOR CHOLERA.—During his recent residence in Tonquin, M. A. Yvert successfully employed this preparation for the cure of cholera in doses varying from 0.02 to 0.04 grains in twenty-four hours. Of forty-five patients so treated nine only succumbed, or about 20 per 100, the normal rate in that region, as in Europe, being 66 per 100. It was also administered to convalescents in districts where the epidemic had again broken out and had already made one victim. None of those who took this preventive medicine were attacked.

HYDRIODATE OF HYOSCINE is a drug which can be used with perfect safety in cases of kidney disease where morphine is inadmissible. It is a drug which may give rest when other sedatives fail.

If used in two-minim doses subcutaneously it may give more satisfaction to the patient than to the attendants, since the unconsciousness may be accompanied by angry and combative delirium; should this occur it will probably be sufficient to diminish the amount employed.

It is very rapid in its action, unconsciousness following in from ten to twenty minutes, and the after effects are of a soothing character.

Even when delirium is present in a violent form, it is followed by quiet sleep, and the patient, being unconscious, is much more refreshed than by a night of short snatches of sleep produced by chloral or bromide, and the result is a marked improvement in both aspect and temper. And lastly, no irritation is produced around the sight of injection.

I believe that hydriodate of hyoscine will probably take a firmly established position as a sedative in cases where morphine cannot be employed.—NESTOR TIRARD, M. D., in the *Practitioner*, Feb., 1887.

PILOCARPINE.—The Bulletin Générale de Thérapeutique, quoting Lekarckie, considers pilocarpine almost a specific in the treatment of gall-stones, if given hypodermatically once or twice daily in one-eighth grain doses. Moreover, the effect upon the pruritus of jaundice is immediate, and adds greatly to the comfort of the patient. Lekarckie was successful in all the thirty cases of gall-stone submitted to this treatment.

STRYCHNINE IN FATTY HEARTS.—In *fatty heart*, with occasional attacks of pseudo-apoplexy, Prof. Da Costo prescribes gr. 1-40 strychnine, three times a day.

NITRO-GLYCERINE IN HEART DISEASE.—In incipient *fatty degeneration of the heart*, and myocarditis, a combination of exceeding value is iron with nitro-glycerine.

HYOSCYAMINE AS A HYPNOTIC.—In the *Journal* of July 14th is a most interesting article on the above, by Dr Pitcairn, giving several successful cases, but as he does not enter very fully into the action of the drug, more especially as to bad effects which may be produced, I shall quote a case which occurred in my practice this season. A fashionable lady in middle life, healthy but over-active, suffering from insomnia and occaseonal prostrating attacks of neuralgia in the head, for which bromide and brandy have been generally employed, asked me to give her some hypnotic that would not disagree next day, fearing a restless night. I prescribed one hyoscyamine tabloid, 1-80th grain, to be taken dissolved in half a wineglassful of water, at bedtime. She had a quiet and most comfortable night, and felt refreshed next day.

This was so satisfactory that I prescribed 1-10 of a grain to be taken if an attack of neuralgia threatened. A fortnight after writing my prescription I was sent for in haste at two in the morning; found my patient in bed, pupils fully dilated, speech muddled. She told me that fearing an attack of neuralgia she had taken a tabloid on going to bed at 11 o'clock; two hours after she awoke with a start, a feeling of fear, great thirst, and burning sensation in the throat; on trying to get out of bed for a drink of water she staggered and fell; her legs felt paralyzed. Her husband assisted her back to bed, gave her a drink of water, but was so alarmed by her saying she was sure she had a paralytic seizure he sent for me. She insisted on her diagnosis, as the left arm and side were numb. There was no neuralgia or pain. Knowing that hyoscyamine is identical with hyoscine, light atropine and light daturine, I at once determined that the symptoms were due to an overdose of the remedy; accordingly I proceeded to allay fears of anything more than a temporary alarm caused, so that after partaking freely of strong black coffee my patient was able to be down to breakfast that morning; the dryness in

the throat and the numbness in the limbs lasted for three days.

I send these remarks, as they may prevent others too readily believing that hyoscyamine has no idiosyncrasy. Where it suits I believe it to be a most desirable hypnotic.—W. SINCLAIR-THOMPSON, M. D., in *British Med. Journal*, Aug. 25, 1888.

PILOCARPINE IN MENIERE'S DISEASE.—Pilocarpine is said to be of distinct advantage in *Menière's disease* if given early. It may also be used with success in aborting an attack of ague if giving at the very outset.

SALICYLATE OF MERCURY FOR SYPHILIS.—One-sixth of a grain of salicylate of mercury given five times daily is a satisfactory remedy in syphilis. It is well borne by the stomach, does not produce stomatitis, and acts more promptly when given internally than the other salts of the drug.

HYDROBROMATE OF HYOSCIN FOR CHOREA.—Prof. Da Costa directed a girl seventeen years of age, suffering with right-sided chorea, and who menstruates annually, to use sitz bath and internally $\frac{1}{200}$ gr. hydrobromate of hyoscin three times a day.

BICHLORIDE OF MERCURY IN DIPHTHERIA.—Dr. J. H. Brierly, of Glasgow, reports three cases of diphtheria in which he used bichloride of mercury, gr. $\frac{1}{20}$ every hour for three days and sprayed the throat with sulpho-calcine, with excellent results. All of these cases presented grave symptoms.

CAFFEINE.—Extensive research has proved caffeine to excite the heart and respiratory movements, and increase arterial tension, stimulate the brain and spinal cord, retard tissue change and increase the flow of urine. Caffeine has been in use so long now, and its applications have become so numerous, that it may suffice to mention but a few of the most important. It is the remedy par excellence in headaches, especially in the so-called nervous or sick-headache, or when due to fatigue or overwork, or the abuse of intoxicating liquors. It is used as an antidote in opium poisoning, as a diuretic, especially in dropsical effusions from heart disease. Of the numerous salts of caffeine the citrate and bromide have met with most favor, being perfectly soluble and not delinquescent. It may be used by the mouth or hypodermically.—*Technics*.

Medicine.

THE TOXIC EFFECT OF TOBACCO VAPOR WITH REPORT OF A CASE.—W. Carroll Chapman, M. D. *The Medical Herald.*—A boy ten years old, who worked in a tobacco stemmery had suffered from slight attacks of pain in the abdominal region, and at the time of observation was suffering with an acute pain, with the intensity centering at the unbilicus. Temperature was 100°, with pulse 108° and tongue glairy, red appearance and pointed. He had been constipated for several days; abdomen flat; urine scanty and slightly colored; skin dry and the feet a little cold. He was given a hypodemic injection of morphia and atropia, and a large dose of castor oil, followed by bismuth and quinia. This gave him some relief for the day, but the next morning the symptoms had returned, oil had failed to move the bowels and he was suffering greatly, being also very nervous. Morphia and atropia were again administered with more oil, and mustard applied over the abdomen. As the bowels still refused to act, he was given a warm water enema, which caused a slight action—very dark, with greenish tinge to the liquid. There was no tenderness of the abdomen on pressure, except at umbilicus, where pain was intense. A full dose of calomel was given, the bed clothes changed, and the little patient sponged with tepid water and a little ammonia, followed by mild rubbing.

For two weeks there was but little change in the boy, but improvement set in and was gradual from this time on. He was somewhat troubled with facial neuralgia, but it was soon controlled.

Previous to the time he went to work in the stemmery he was inclined to be plump, robust and healthy, but for several years before his sickness he had been decreasing in weight. After ceasing work, he soon began to gain in flesh and at the end of two years, was in complete health, and quite fleshy.

A CASE OF ACCESSORY THYROID GLAND. *Deutsche Med. Zeitung.*—A girl eighteen years of age, who generally enjoyed good health, had complained, ever since an attack of whooping cough, in her twelfth year, of a feeling of fullness and pressure in her throat. Upon a laryngoscopical examination there was seen at the base of the tongue, upon the left side, a tumor of hard, solid consistence, extending almost to the middle line, and becoming lost toward the middle of the epiglottis. Under the use of iodide of potassium some improvement seemed to take place at first, but soon the tumor began to grow afresh, and the act of swallowing became quite difficult. After a prophylactic tracheotomy had been performed, both lingual arteries were ligated and the jaw bone sawn through after the manner of Langenbeck, exposing the tongue so that the tumor could be, though with difficulty, entirely removed. The wound healed favorably, and nourishment was introduced for some time through an elastic catheter.

The tumor was found to be an accessory thyroid gland. Such a development in the muscular structure of the tongue is certainly a rare occurrence.

OCCLUSION OF DUODENUM IN A NEW-BORN CHILD.—*The British Medical Journal.*—Drs. Porák and Bernheim described a case where a woman was delivered at the eight month of a sickly female child. There was hydramnios, and over six pints of fluid came away during labor. There were two small fibrous deposits in the placenta. On the first day the child vomited dark matter, each attack of vomiting coming on about three-quarters of an hour after suckling. On the third day, as no meconium had passed, imperforate rectum was suspected; but a sound could be passed for over two inches up the anus. An enema was given, and a little meconium came away; but the vomiting continued, and the infant died on the fifth day. The stomach was found much dilated; the lower part of the large intestine was full of meconium, but the remainder of the intestinal canal was like a little packet of worms. The stomach communicated by a contracted orifice, apparently the pylorus, with a blind pouch which had no connection of any kind with the rest of the intestine, which terminated above in a blind extremity close to the pancreas, which opened into it.

In a similar case reported by Crooks in 1828, the pancreatic duct opened into the pouch connected with the stomach. Luton described, in 1855, a third case, where that pouch communicated with the blind end of the intestine by a ligament. There was a similar breach of continuity between the large and small intestine. No trace of peritonitic bands could be seen in Drs. Porák and Bernheim's case.

A Case of Enteric Fever in Child Nine Months Old.—J. Reginald Fuller, M. R. C. S. *The Lancet.*—A female child nine months old was brought to hospital suffering from diarrhœa, sickness, heaviness, headache and irritability, mother stating that it had refused food for ten days past, but the symptoms above had only been noticed for two days previous to presentation for treatment. When seen the child was very ill, skin dry and hot, temperature 102°, tongue dry, slightly furred, but not particularly red at the tip. The abdomen was slightly tympanitic and there seemed to be no pain on handling it, except on pressure. Child grew rapidly worse and in three days death took place. The following day at post-mortem the heart was found to be normal, the cerebral vessels slightly congested, and some fluid in the lateral ventricles. The kidneys and liver were normal, stomach contained curds, the small intestine was red in the neighborhood of Peyer's patches; these latter being inflamed and elevated above the surrounding surface and some of the lower ones were commencing to break down. The mesenteric glands were enlarged, and the solitary glands of the cæcum were abnormally prominent; the rest of the large intestine was normal, and there was no perforation of the gut, or peritonitis.

On inquiry, defective sewerage was found to exist in building, which undoubtedly caused the presence of the disease, there being at the same time a woman sick in the house, with the same symptoms as the child presented, and a few days later the elder child of the mother took down with same disease, but fortunately recovered.

Acute Perforation or Ulcerative Aortitis in which the Bacilli of Anthrax were Found.—Thomas Oliver, M. A., M. D. *The Lancet.*—A watchmaker, pale but well nourished, was admitted to hospital suffering from night sweats, nervousness, great pain in left side of chest, and down the arm on that side. He had been an athlete, but while engaged in some athletic sports at the age of twenty-three, he had been subjected to a severe wetting which caused rheumatic fever, lasting seven months. Four years after he had experienced a milder attack of the same fever, but made a good recovery.

At the time of examination, there was considerable pulsation of the heart, the apex beat being very diffused; felt most distinctly 3½ inches below the left nipple and one inch external to it. There was also epigastric pulsation. The area of cardiac dullness, and extending from one inch to the right of the sternum to just beyond the left nipple, measured transversely 6¼ inches. A double murmur was heard over the aortic area, and systolic murmur was carried well up and to the right, whilst the diastolic was carried down the sternum and to the apex. Over the mitral area, a loud blowing systolic murmur was heard, which was carried well into the left axilla. The diastolic murmur was quite audible to patient and at times to other persons. Slight pericardial grating could be distinguished at the apex and base of the heart, pain being complained of in the epigastric region, increasing on pressure.

Aortic and mitral regurgitation was diagnosed, and he was given tincture of convallaria which produced considerable relief, but not so much as ⅛th doses of cyanide of zinc. Eight to ten days after taking the latter, he had relief from pain, could sleep well and left the hospital.

About two months after this time he walked three-quarters of a mile down hill, and after spending some time in church started back, but had only walked a little distance when he was obliged to be supported by the arm of a friend, and without complaint of pain, gasping or any difficulty of breathing that could be noticed, he fell dead. Post-mortem revealed the following:

On removing the sternum, a large pericardial surface of a bluish or slaty color was brought into view. The pericardium was at once opened, and, on reflecting it, no portion of heart substance was at first observed. The whole of the heart was covered by a thick, smooth blood clot, all of one piece, perfectly undisturbed. The clot quite enveloped the heart. Fully one pound of clotted blood was removed. The heart was extremely hypertrophied and dilated, and weighed twenty-four oz. A most careful search was made for rupture of the heart muscle, but nothing was at first detected beyond the fact that the tissues at the extreme base of the heart were deeply stained. The heart and portion of the aorta were now removed for more careful examination. The aortic valves were incompetent; left ventricle extremely dilated and hypertrophied; myocardium very pale, gray and mottled; mitral orifice dilated, but valve segments healthy. On still closer examination the aortic valves were seen to be quite healthy, but the aorta immediately above the orifice was dilated, and a distinct pouching was noticed just above the valves. Over a small area which lay between the mouths of the two coronary arteries, and which extended upward for nearly an inch and a half, the lining membrane of the aorta was extremely red; it was soft and ulcerated, and in two places was gangrenous. From the center of this patch a small pouch protruded outward. Its wall was as thin as ordinary writing paper; it was bluish-red and soft, and its floor was perforated by an opening the size of a large pin's head. A plate of atheroma lay close upon the mouth of the left coronary artery. The pulmonary artery was healthy. The wall of the right ventricle and auricle was extremely thin. The blood which filled the pericardial sac had therefore come from the perforation in the floor of the pouch which lay above the aortic valve. The ulceration and gangrene had extended into the neighborhood of, and had all but involved the mouths of the coronary arteries, one of which was dilated to the size of an ordinary penholder. The lungs were slightly engorged, frothy and œdematous, but were otherwise healthy. The small patch in the interior of the aorta seemed to have been the seat of acute inflammation and gangrene. It resembled the destructive process met with in acute ulcerative endocarditis, and yet it differed from it in the complete absence of anything like the presence of accompanying vegetations.

A microscopical examination of a section revealed bacilli in abundance grouped in various parts, bearing

the closest resemblance to those of anthrax. It is difficult to explain their presence as the mode of infection is by inhalation of spores and ingress by the pulmonary or intestinal mucous membrane, or by direct inoculation of a wound or abrasion.

Surgery.

FRACTURE OF THE CARTILAGINOUS PORTION OF THE NASAL SEPTUM FOLLOWED BY ACUTE TRAUMATIC PERICHONDRITIS.—Charles Dunbar Roy, M. D. *The Atlanta Medical and Surgical Journal.*—A student, while engaged in playing base ball, accidently allowed the ball to slip through his hands, striking him on the tip end of his nose. There was very little pain or bleeding at the time, but the following morning his nose was much swollen and considerably interfered with nasal respiration. For two days hot water applications were used externally, with borax and vaseline, but he experienced but little relief and finally applied for treatment.

On inspection the cartilaginous portion of the nose externally showed considerable swelling, and by tilting up the anterior extremity, aided by reflected light, the nasal cavity was brought into view, revealing complete occlusion of the canals. The occlusion was formed by protrusions from each side of the cartilaginous portion of the septum, and the septal cartilage gave the appearance of having been pulpified by the blow.

By palpation with tips of little fingers introduced into the canals, the cartilage was easily movable from one side to the other, the anterior half moving without seeming to disturb the posterior portion, although the œdema and swelling were considerable. By means of the probe and reflected light, it seemed as though the cartilage had been mashed down from above and spread out laterally. There was great tenderness; some bleeding had occurred from the left side, and by pushing the septum to one side, and a forcible expiration being made by patient, considerable bloody serum would exude. The nasal bones were intact and the turbinates were in no wise enlarged or œdematous.

After thoroughly cocainizing the parts, two firm plugs of cotton, saturated with bichloride solution, were introduced anteriorly for the purpose of exerting pressure on the sides of the septum. A solution of aristol in liq. albolene was also to be used anteriorly with a glass dropper and allowed to permeate the tissues. For four days there was but little change, but at the expiration of that time the young man could breathe slightly through both sides, and the following day the plugs of cotton were discontinued. For several days following both sides of nose were sprayed with oil of eucalyptol in vaseline and the protuberances painted with a solution of nitrate of silver. The plugs not producing the desired result, scarification was used on right side, and the next day mucous membrane on the left side of the septum thoroughly incised, evacuating several drachms of sero-pus. A collapse of the membranes on both sides of the septum followed and there was increased nasal respiration. Blood and serum followed the incising of the right side and in a few weeks both sides appeared normal with but a slight ridge on the left side following the line of fracture.

Three months after patient applied for treatment on account of an interference with breathing on left side and an examination revealed some thickening of the cartilage throughout its whole extent. The ridge running vertically at the line of fracture in the left fossa offered resistance to the entrance of air and secretion gathered at that point. Inferior turbinate was somewhat hypertrophied. Treatment was given and he continued to improve.

PISTOL SHOT WOUND OF THE BRAIN.—Joseph Ransohoff, M. D.—*The Cincinnati Lancet Clinic.* A young man, æt. 20, fired a twenty-two caliber ball into his left temple, and fell to the ground pale and excited, but conscious. The wound, two inches behind the external angular process and an inch above the zygoma, was filled with a blood clot; no oozing; pulse and respiration normal; pupils active and equal. Paraphasia was present. An antiseptic dressing was applied for the night, but by morning his condition had changed for the worse, delirium setting in, pulse hard and frequent; temperature 101°.

An exploratory trephining was made by enlarging the entrance of the wound and exposing the irregular opening in the skull which showed the edges blackened and roughened. With a half-inch trephine and rongeur the opening was increased to nearly an inch, freely exposing the small, blackened aperture in the dura. The head now being placed on the right side, and an examination being made with an acorn-tipped hollow wire bougie, it revealed the fact that the bullet had followed an inward course, deviating downward and slightly forward. There were two spiculæ of bone at the depth of an inch and a half, which were removed. A bony surface arrested the course of the probe at the depth of two inches, but nothing was seen or felt of the ball. But slight hæmorrhage was met with which was easily controlled. A drainage tube was carried into the depth of the sinus, and the external wound closed by sutures and loosely packed with sterilized gauze about the tube.

The first dressing with drainage tube was not removed for eight days, and after second dressing the wound healed entirely. The delirium did not return at any time, temperature was not above normal and the process of wound repair was without a flaw. Five months afterward the patient was in perfect health and resumed work.

FISH BONE IMBEDDED IN BASE OF TONGUE.—Augustus McShane, M. D.—*New Orleans Medical and Surgical Journal.* A negro, thirty-eight years of age, applied at clinic for relief from a very distressing dysphagia, and stated that fourteen days before he had swallowed a fish bone. There was considerable pain, he being unable to swallow only a little water, and had not eaten for two days. As the throat was very irritable, it was swabbed with cocaine, which gave him some relief, and with the laryngoscopic mirror, a round, elevated, ulcerated patch was first seen on the right wall of the pharynx. Upon touching this spot with probe it caused great pain A mass of muco pus was also seen lying on the base of the tongue, in front of the epiglottis, and partly concealed by it. After the use of cocaine the tongue was pulled well forward and from its base there projected a small white substance, which scraping against the side of the pharnyx produced a painful ulcer.

With a Frankel's forceps the foreign body was removed and proved to be the fish bone. The patient expressed immediate relief from pain after the operation.

RETENTION OF URINE CAUSED BY MUTIPLE URETHRAL CALCULI.—J. V. Prewitt, M. D.—*The Times and Register.* A farmer, had fifteen years before coming under observation, been kicked on the penis by a horse, some blood being passed for a few days and it was not until a few months later that he observed the stream was very much diminished in size, he having a desire to micturate oftener than usual. Four years after the injury serious trouble commenced which continued for ten years previous to application for treatment. There had been more or less retention of urine, which at times had been voided by drops, but he had suffered no pain, never passed any gravel or had renal colic. For eight years a hard swelling existed in the perineum, gradually increasing in size, extending from the anterior aspect of the sphincter ani well forward through the scrotal region. There was some twisting of the stream and sudden stoppage, and a few drops of mucus would pass just before the urine.

An examination revealed a close stricture, one and a fourth inches back from the meatus urinarius and the urethra recently ruptured at the bulbo-membranous junction and the large amount of the long retained urine greatly infiltrated the surrounding tissues. The scrotum presented a cylindrical appearance, being near the size of a gallon vessel and the perineum bulging out very much. It was impossible to pass the stricture with sounds, but a probe was forced to the seat of stricture, just back of which was a hard substance but no click owing to the dense cicatricial tissue.

The diagnosis being probable calculus, patient was placed in the lithotomy position and after chloroform was administored, the staff was introduced with the groove looking toward the surface and brought carefully into contact with the stricture and a median incision made down to the guide, just anterior to the stricture. This was extended in the median line toward the perineum, parting the stricture and exposing the first calculus, which was imbedded to some extent in pus. The urine escaped with a gush. One finger was introduced into the rectum and by manipulation eighteen facetted calculi were evacuated from the urethra occupying almost the entire extent of the canal, and weighing 403 grains. Three of the calculi were round, and filled the urethra. The man made a good recovery and was able to attend to his ordinary farming occupation in a few months.

SECONDARY OPERATION FOR THE REMOVAL OF INTRA-LIGAMENTOUS CYSTS.—Rufus B. Hall, M. D.—*The American Gynecological Journal.* Mrs. D., aged 39, had some twenty months before coming under notice, been subjected to an abdominal section, and an intra-ligamentous cyst of the right side discovered, which was tapped and then stitched to the abdominal wound. The external wound did not close for five months, as the pus and sepsis discharged in considerable quantities, and after a few months it opened through the vagina and discharged pus ever afterward. The pain which patient has suffered before, was not relieved by the operation, and she had repeated attacks of peritonitis, confining her to her bed for months. At the time of examination there was a ventral hernia at the old scar and a tumor as large as a cocoanut in the pelvis and abdomen, while her sufferings were very severe, and could only be partially relieved by large doses of opium. Although an operation was decided to be a very serious matter, it afforded the only and last chance, andwas performed as follows:

An opening was made above the old scar on abdomen and extensive intestinal adhesions to the abdominal wall and old cyst wall were found. The incision was enlarged toward the pubis to the left of the median line, so as to avoid the intestines, and after an hour's hard work, the adhesion was separated. There was found an intra-ligamentous cyst on the left side, which was removed from the broad ligament, after which the one that had been stitched to the abdominal wall was dissected out. Extensive intestinal adhesions existed in the pelvis, but no attempt was made to liberate them. The hernial sac was cut away, a glass drainage tube inserted, and cavity closed. Patient rallied well from the effects of the operation, but died from intestinal obstruction on the fourth day after.

OBSTUCTION OF THE BOWELS BY GALL STONES.—M. Price, M. D. *The Times and Register.*—Mrs. M. when forty-five years old, began to suffer with slight pain in the right side of the abdomen, and on examination the area of dullness over the liver was considerably enlarged, but there existed no increase of temperature or pulse. For four days it was impossible to move the bowels, although during this time there was administered ten calomel powders, four Seidlitz powders, two bottles of citrate of magnesia in divided doses, two ounces of Epsom salts, and one drop of croton oil. There was no vomiting or increase of temperature or pulse during this time, but on the fifth day patient's condition was such that something immediate had to be done, so an opening was made directly over the region of dullness, two inches in length, and a greatly distended gall-bladded was discovered. This was tapped and its contents drawn off, which was a clear gelatinous fluid and having none of the characteristic appearances of bile. Upon examination of the gall-bladder two large stones and one small one were removed.

The obstruction of the bowel was caused by the pressure made by the distended gall-bladder with the gall stones laying on the transverse colon. This as it enlarged was pressed backward by the abdominal wall, making pressure on the colon and causing complete obstruction.

A drainage tube was placed in the gall-bladder, which was securely stitched in upper angle of wound, silkworm sutures used and a dry dressing and bandage applied. The third day after operation the bowels moved slightly and flatus passed freely. The next day however after repeated doses of Epsom salts there were free purgations. Patient made a rapid recovery which in every way appeared to be complete.

SUBACUTE GANGRENE RESULTING FROM INFLAMMATION OF THE INGUINAL GLANDS.—J. B. Bawden, M. D. *The Lancet.*—Being called to see a man fifty-two years old, in very bad health and of intemperate habits, found that bowels had not acted for four days and remedies taken had had no effect. On examination there was a swelling in the right groin just below Poupart's ligament, which had been present for some years, but had caused no inconvenience, and being movable and not tender, it was supposed to be a group of degenerated inguinal glands. He was given a saline purgative mixture, but as this had no effect, the next day a soap and water enema effectually

emptied the lower bowel, which continuing to act once a day, his condition became satisfactory until about five days later, when the swelling began to be painful. It had increased in size, become inflamed, but there was no fluctuation and not much induration. There was prescribed a light diet, and a lead and opium lotion applied to the groin, and he seemed to be progressing favorably until some ten days after, when the parts were found to be gangrenous and the cellular tissues about the groin had become emphysematous. The swelling was incised freely and charcoal poultices applied constantly to clean the wound and destroy the smell, while internally he was given a mixture containing amm. carb. and tr. cinchon. co. with free stimulation to keep his strength from failing. The gangrenous action ceased to spread, a line of demarcation formed, and in three days the slough had to a considerable extent separated. The wound was dressed with carbolic lotion twice a day, after being dusted with iodoform. After the slough had separated there was an ulcerated surface extending nearly the whole length of Poupart's ligament and irregular in shape. This healed slowly, but satisfactorily, and in one month was firmly scabbed over. The man was given internally quinine and iron, with port wine, and improved very much in health and appearance, continuing so ever since.

MISCELLANEOUS.

Drink and the Death Rate.

The relation of drink consumption to the death rate formed the subject of a communication recently made to the Manchester Medico-Ethical Association by Mr. Meacham, district medical officer. The reporter recorded it as his experience of thirty years of work among all classes of the people, that a very large percentage of disease is directly attributable to the influence of alcohol. In the congested parts of the city this was especially the case, and he urged on the association the duty that rested on it, of doing all that lay in its power to aid the corporation of Manchester in the efforts that were being made to promote temperance principles among the masses. Mr. Meacham attributed 21 per cent of the pauperism met with to the hereditary influences resulting from drink excesses. He had compared the children of drunkards with those of temperate parents and found that the latter possessed vast advantages over the former in respect to healthfulness and freedom from diseases.—*Med. Press and Circular.*

Life Insurance and Syphilitic "Risks."

Mr. Jonathan Hutchinson has published a paper in the *London Practitioner* on the "Modern Treatment of Syphilis," in the course of which he considers some of the more important relations of syphilis and life insurance. He states that he has recently been requested by a life insurance company to formulate a code of rules for the guidance of its examiners when considering the acceptance or rejection of applicants for insurance who have had syphilis. His advice on this subject was for the most part favorable to the applicants; with this exception, however, that he would decline those persons who, at the time of their presentation, shall be undergoing the active development of secondary symptoms. These applicants, he advises, should be told to wait until these symptoms had disappeared. He based this counsel on the fact that it is always desirable to know how well or how ill the syphilitic patient sustains the specific treatment proper to the second stage of the disease, and also how willing and attentive he may be to follow out the directions of his physician. Mr. Hutchinson holds that an insurance company might make a profitable business out of syphilitic risks accepted in the early stage of the disease and taken at the ordinary rates, for he has found that the threatened life is often a long one. In his experience such syphilitic persons appear quite as likely to attain to length of days as others who have not been syphilitic. In the cases of those who present themselves free from symptoms, but who have the history of a former attack, the advice is that they be not refused, provided that they have not definitely become the subjects of the tertiary lesions of the disease, or have not, owing to idiosyncrasy or inadequate treatment, had a prolonged siege of secondary symptoms. But even among these there are not a few who would be regarded by Mr. Hutchinson as eligible risks at ordinary rates.—*Jour. Am. Med. Association.*

To Determine Pregnancy.

Dr. W. R. Lowman (*Med. Summary*) gives the following method: Examine under the tongue for two teats, about the size of No. 4 shot, each attached to a slender cord in which a nerve runs, connecting with the genital center. They are pale in the nonpregnant, but in the enceinte they are purplish red.

Remarkable Contents of a Dermoid Cyst.

At the New York Obstetrical Society, May 5th, Dr. Munde presented a switch of hair, five feet long, which he had removed from a dermoid cyst of a woman, forty-one years of age. There was a dermoid tumor of each ovary, the right one being as large as a pregnant uterus of six months, and containing this switch of hair, the other a small ball of hair and several teeth. This large switch sprang from a small nipple-shaped protuberance at the upper portion of the sac, which was unilocular. At its root the switch was not more than an inch in diameter, gradually enlarging to a rope of matted hair as thick as the forearm. Dr. Munde thought that probably very few cases of such enormous cranial development in a dermoid cyst are on record.—*New York Journal Obstetrics.*

Items of Interest.

In the practice of M. Verneuil gangrene of the foot has in two cases followed the hypodermic injection of antipyrin, along the course of the sciatic nerves.

M. Forlanini, of Paris, treats chronic gastritis with dilatation by washing out the stomach with a $\frac{1}{10000}$ solution of nitrate of silver after cleansing the viscus with a 2 per cent solution of bicarbonate of soda.

F. Rowland Humphreys, L. R. C. P., London, in *The Lancet* reports five cases of lead poisoning relieved by atropine. He concludes that in lead poisoning atropine in full doses (1) relieves the colic and the pain in the head in the most rapid manner; (2) it keeps the bowels freely open; (3) it assists in the return of the bodily powers, and (4) it assists, directly or indirectly, in the removal of the lead by iodide of potassium.

Dr. Koch has recently announced that the addition of sixty per cent alcohol to tuberculin causes a deposit of its active principle. The therapeutic effect of the precipitate is identical with that of the original preparation.

Antikamina, the proprietory hypnotic and analgesic for which so much is claimed in efficiency and safety, proves not entirely harmless. A death from it is reported in the *American Practitioner*. It is stated that the composition of this article is four parts of antifibrin to one of bicarbonate of soda.

The death of Dr. Standiford of this city, from the effects of alcohol and opium, and the committing to jail for drunkenness of the Secretary of the Bichloride of Gold Club in a western town, coming so closely after the death of Col. Mines, gives rise to the suspicion that the Keeley cure is as fallible as other human inventions. Meantime Dr. Keeley's receipts are $3,000.00 a day and the curing goes merrily on.

Dr. Frederic S. Dennis in the New York *Medical Journal* reports two cases of vesical calculi removed from patients who had been operated upon by median section. In both instances the stones form in the cul-de-sac left by the former operations. He has never seen a stone form after the supra-pubic operation and finds in this an argument heretofore overlooked by surgeons in favor of the latter procedure.

Dr. Frank Van Vleet, writing in the *Medical Record* on the normal refraction of the eye, concludes that

1. Hypermetropia is the normal condition and the only condition consistent with clear and distinct distant vision.
2. Emmetropia, in the ordinary acceptation of the term, does not exist, except as the beginning of myopia.
3. Myopia is the product of civilization developed in the struggle for existence. Emmetropia is only a stage of transition to myopia.

Dr. N. Senn reports in the *Medical Record* fifteen cases of pyloric obstruction treated by operation and from them draws the following conclusions:

1. Pyloroplasty, as devised by Heineke-Mikulicz, is the safest and most efficient operation for cicatricial stenosis of the pylorus.
2. Pylorectomy in the treatment of carcinoma of the pylorus is a justifiable procedure when the disease is limited to the organ primarily effected and the patient's general condition furnishes no contraindications.
3. Gastro-enterostomy by the aid of large, moist, perforated plates of decalcified bone should be resorted to in the treatment of malignant stenosis of the pylorus as soon as a positive diagnosis can be made, and a radical operation is contraindicated by local or general conditions of the patient.

Wit and Humor.

PAT'S CRITICISM.

There's a story that's old,
But good, if twice told,
  Of a doctor of limited skill
Who cured beast and man,
On the cold water plan,
  Without the small help of a pill.

On his portal of pine
Hung an elegant sign,
  Depicting a beautiful rill,
And a lake where a sprite
With apparent delight
  Was sporting in sweet déshabillé.

Pat McCarthy one day,
As he sauntered that way,
  Stood and gazed at that portal of pine,
When the doctor with pride
Stepped up to his side,
  Saying, "Pat, how is that for a sign?"

"There's wan thing," says Pat,
"Ye've lift out o' that,
  Which, be jabers, is quoite a mistake.
It's trim and it's nate,
But to make complate
  Ye shud have a foine bird on that lake."

"Ah, indeed! Pray then tell,
To make it look well,
  What bird do you think it may lack?"
Says Pat, "Of the same
I've forgotten the name,
  But the song that he sings is 'quack, quack'!"

—*Medical Advocate.*

To vaccinate or not? That is the question
Whether 'tis better for man to suffer
The painful pangs and lasting marks of small-pox,
Or to bare arms before the surgeon's lancet,
And, by being vaccinated, end them? Yes,
To feel the tiny point, and say we end
The chance of many a thousand scars,
That flesh is heir to, 'tis a communication
Devoutly to be wished. Ah! soft you now,
The vaccination! Sir, upon your rounds,
Be my poor arms remembered.

—*Puck.*

A Christian scientist asked a patient whether he had ever tried faith-cure for rheumatism. "Yes, I am trying it now. I've got in my pocket the left hind-foot of a rabbit that was killed in the dark of the moon, and I'm blamed if I don't think it is helping me."

Undertaker (sympathetically):—What ailed your wife?

Bereaved husband:—Wall, fust she tuk a bad cold, then she tuk the doctor's prescription, then she tuk her bed, and a tween the three, they just laid her out. —*Pharmaceutical Era.*

Mrs. McSwyny:—"Oi'm towld your choild fell out o' the top windy, Mrs. Clinchy."

Mrs. Clinchy:—"Yes; an' av me little mon hadn't coom along jest at the roight toime an' broke the fall wid the top av his head, me bye'd been kilt."

Mrs. McS:—"Did it hurrt yer hoosband, now?"

Mrs. C:—"Oi don't think so. It broke his neck, an' he doid without a groan."—*Harper's Magazine.*

"Man, what have you done? You sent my patient the wrong prescription and it killed him."

Druggist—"Vell, vhat vas der matter mit you? Last week I sent your odder patient der right prescription and dot killed him. How can somebody please sooch a man.—*Springfield Republican.*

Mrs. Rittenhouse—"Doctor, I must go to Florida at once, and I have come to consult you."

Dr. Girardin—"Why, my dear madam, what's the matter?"

Mrs. Rittenhouse—"That's what I want you to tell me."

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